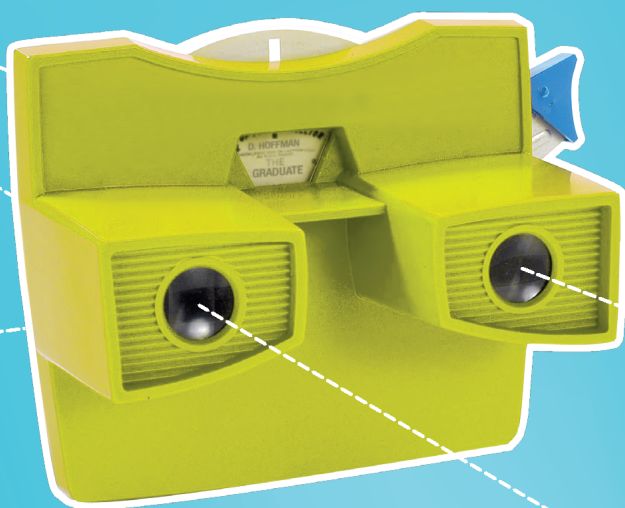


A Practical Guide to

# Better Research and Writing for Students of Design



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# Introduction

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## **Words: an Integral Part of Design**

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Good design is a high calling that assumes function and represents it as the ultimate visual expression. It can convey information on form and proportion as well as mood, atmosphere and intension, while acting as a means of invention and a vehicle of understanding complicated information. Design itself is better understood as a process rather than a conclusion. As such, it is driven not only by inner seeds of inspiration but by exhaustive and comprehensive research through a variety of sources, creative hubs and literary materials.

Just as the process of design is dynamic and ever-changing, a healthy research process requires an energetic and methodical approach in order to reap maximum benefits. Research requires great discipline and a vigorous mind capable of organizing the influx of information and employing the fruits supplied to further the course of the project. Writing, on the other hand, requires a corresponding set of skills and organizational abilities. Fluency of language is an added benefit to those design students not operating in their native tongue, but proper thinking and mature structure of written media is usually independent of language depth and sophistication.

During the academic tenure of a design student, verbal expression is often overlooked in favour of exercising other, more pertinent skills, thus allowing the verbal muscle to atrophy. Nevertheless, words, the building block of verbal imagery, function as vital vehicles towards creative discoveries and new ideas of unlimited dimensions.

In addition to visual communication skills, a good, well-rounded designer must be adept at all forms of communication, including verbal communication and writing. Strong writing skills, as well as comprehensive research techniques are imperative for the

design student's education and in his or her professional career. Upon close investigation, it becomes apparent that research and compositional writing actually require talents that are singularly parallel to those of successful design: both calls for the ability to organize thoughts and legibly narrate expression.

This guidebook is being published at a time of global media frenzy, where designers are called upon to create, produce and compete in a demanding market place where being a gifted designer may not always be skill enough for employment. A designer who is flexible, adaptable, and whose abilities include being an effective researcher and a good writer is a far more desirable option to a potential employer, collaborator or team member than someone whose knowledge and talent is more or less limited to design-orientated disciplines.

## **Scope of Guidebook**

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Since the guidebook is written by designers, and intended for designers, it taps well into the psyche of this unique category of professionals, providing valuable insight and advice from a distinct "I've-been-there" perspective. It prods design muscles in supporting such seemingly non-design related assignments such as research and writing and it anticipates and pre-empts potential hurdles and traps common among design students.

Although designers are often separated into Architects (including Landscape Architects, Interior and Urban Designers), Graphic, Apparel and Industrial Designers, in recent years fields such as Film and Animation Studies and Photography also fall into the category of Design and the Applied Arts. This guidebook is intended for those students either focusing on any of the above mentioned areas of study or students taking a course or two in the applied arts aiming to broaden their academic horizon.

The guidebook aims to accompany the design student through all stages of the research and written composition. The composition may serve as a segment of a thesis or dissertation project or it may be an autonomous research and writing assignment in itself;

the latter type of assignment is a common requirement for most history, theory or communication courses for students of design. The student is guided through a series of methods and techniques, as well as suggestions and tips which contribute to a successful outcome. The guidebook aims to provide a road map through the challenging process of finding and committing to a subject, crystallizing the subject into a concise proposal, conducting a thorough and exhaustive research and finally producing a sound, written composition.

## **Dissertation, Thesis or Research and Writing Assignment**

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It is imperative to determine early on, the span of certain common terms used often in the guidebook and in academia. Dissertation and thesis are terms often used interchangeably. In fact, their use quite frequently ranges according to geography. In universities in the Northern United States, a dissertation is the written submittal for a doctoral degree and a thesis is the paper submitted towards a master's degree. In the United Kingdom, these definitions are reversed. In other English-speaking universities throughout the world, the convention followed usually depends on whether the institution applies an American or a British curriculum system. In this guidebook, the terms thesis and dissertation are used as per the North American principle.

A thesis differs to a dissertation in that it implies an original research target, whereas a dissertation provides a comprehensive research and synthesis of existing literature in order to support the chosen topic. For instance, a research titled "Bauhaus and Furniture Design" would probably be found as a dissertation analysing the work of Bauhaus academics and examining its influence on furniture design in a historic and interpretive manner. On the other hand, a title such as "Rejuvenating Urban Zones between Residential and Industrial Communities" implies an original investigation which should include the author's opinion, solutions or critical thought. The final product of both thesis and dissertation is broadly divided in two parts: the visual presentation and the written composition. A thesis project is not limited to a master's degree submittal.

It can also represent any project with a minimum year-long commitment, usually completed in the final year of study. It involves the generation of a design project which demonstrates the student's ability towards problem evaluation, critical judgment, narrative sequences, targeted development and meaningful completion. Conversely, a research and writing assignment for a history, theory or communications course requires the proficiency of all skills mentioned above, excluding the visual, constructive component of the design project. For the convenience of the reader this guidebook will adopt the term *assignment*, both research and written, to include all occasions where the design student is called upon to produce a written essay of any kind.

# IDENTIFYING A SUBJECT

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## The Idea

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An idea is a notion existing solely on an abstract or theoretical platform. It is a thought, a suggestion and at times, it serves as an aim or purpose. Much like the word *concept* with which it is frequently used interchangeably, the two words differ by their delicately separate nuances. Although both meanings are based in thought rather than event, a concept alludes to a specific direction and may require a more definite mental image to establish its validity. The idea, on the other hand, is a more inclusive term which requires less structure and commitment. A concept is most definitely based on an idea, whereas an idea does not necessarily need to include a concept.

This chapter deals with the notion of the *idea*, rather than the *concept*, not only in recognition and avoidance of the general overuse of the word concept, but also because the term *idea* has undoubtedly a more flexible and encompassing nature. In design, a tangible, finished product needs an appropriate idea from which to be generated. As early as 700,000 years ago, man had been using a hand-axe that he was able to develop and construct by some basic application of abstract thought (Watson 2005). This is the earliest documented occurrence where man acted as a primitive designer by recognizing a need and constructing a solution while conducting basic mathematical transformations without the use of a writing utensil.

The idea (or even the concept) may enter the mind in a quiet or a sly way or it may enter in a ceremonial fashion. It may be the fruit of a long, arduous process of thinking, investigating, eliminating or meditating, or it may be a seed that spontaneously germinates, much like the proverbial light-bulb on top of the inventor's head. Regardless of the method by which it appears, the idea is the basis



of any condition action, or task. The idea, as it pertains to a design project of any type or scale, operates much like the bottom layer of a pyramid, a solid base onto which the designer builds the bricks of progress, each layer more specific and targeted than the one before, until the mental construction reaches a point and continues as a line to infinity.

When given a research or writing assignment, the idea for the topic is sometimes provided by the course instructor or the evaluation committee. In other cases, it is limited or delineated by the parameters of the course of study. There are, however, many occasions, particularly in the case of a final-year thesis, where you, the design student, are called upon to identify a topic of your own to pursue. The student capable of stimulating his or her imagination and successfully focusing on an appropriate chosen subject of study for a thesis or an assignment, possesses a tremendously useful academic and professional tool.

## **Evolving Imagination**

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A student frustrated by the hurdled path of finding a subject for the assignment at hand, may rightfully question the motives of this exercise. After all, when practising professionally, it will probably be on rare occasions when you will be called upon to determine or 'discover' your own design topic. Most assignments appear in the form of design briefs and commissions are all too specific and parameters are usually set quite tightly.

Why then, is it important for the student to be skilled in finding and developing ideas that lead to projects? The answer lies in the murky realm of what can be loosely defined as *imagination*. Imagination, as a notion, lies in the same quarters of the designer's intellectual kit as the two earlier culprits, *idea* and *concept*. In all probability, all three notions are activated using the same mental muscles. Imagination is the ability to create visual imagery as a response to certain stimuli. It thus follows that a well-exercised imagination, serves well the designer's overall aptitude and performance. In the course of your future career as a designer you will constantly

be called upon to exhibit the uniqueness of your approach in problem solving, in researching and in communicating. Among design professionals, the comparisons “good” and “bad” or “right” or “wrong” are precarious. What distinguishes a high level of design ability is individuality, creativity and, inevitably, well-harnessed imagination.

The ability known casually as ‘thinking outside the box’ cannot be ignored on account of its colloquial usage. If thinking is analyzed as a process and process is interpreted as a linear, albeit flexible progression, then it becomes apparent that a direction for resolving the task has been to some degree pre-determined. Thinking outside the box, also known as lateral thinking, implies directing the thought process away from the pre-determined path towards a sideways direction. This mental motion requires serious momentum and an innate ability to employ imaginative and creative thought.

Imagination and creativity are two skills present in all humans to varying degrees, designers and non-designers alike. A healthy imagination can be cultivated and encouraged to evolve by constantly responding to visual and mental stimuli. There are a number of peripheral skills which contribute both actively and passively to a colourful and creative imagination, such as a heightened sense of observation, discussed in a further topic. Another approach, one that is certainly more complex and theoretical is separating language from the creative process. Since ideas and imagination existed before the evolution of language, it is reasonable to assume that the mind’s ability to imagine is independent of the vehicle of language. Trying to fabricate a meaning while resisting the urge to identify the meaning by name can be a challenging and creative way to generate an idea.

### **The ‘Inner Seed’**

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When faced with the daunting task of inventing a topic for research and writing, there are a number of directions one can follow and locations one may search. The most intuitive and more precious place is your own subconscious. This may well be the moment when

you are called upon to draw from your inner core and uncover, or perhaps discover, the driving force that has led you to pursue a career in design. In some cases this internal search may become an exhilarating journey of discovery which, if pursued methodically and with care, will light up each student's academic raison d'être.

Some design students have an easier job than others when it comes to concentrating on a subject to investigate. There is no particular student profile that can predict which student belongs in which category. Although some students may appear opinionated in the classroom environment or among friends, there is no guarantee that these students will be more successful in finding their chosen subject than those who choose to consistently dwell in the seats on the back row.

Many successful research and writing topics come from a small idea, sometimes a word or a single thought – a seed. This seed is often lodged in the subconscious, waiting for the opportunity to surface and grow. This is how a loose metaphor like the 'inner seed' comes to be.

On the other hand, an equal number of successfully completed research and writing projects do not originate from an inner seed, but start life as an amalgamation of different ideas. Sometimes ideas literally flood the designer's creativity hub and can exude a feeling of euphoria or alternatively, a sense of overwhelming frustration because of the sheer volume of information the brain is called upon to process. The best way to begin applying sense and order to all these creative thoughts is to assign words or lines to them. Sketch them out, write words or small phrases, and make lists. Some may translate to a hand-crafted primitive sculpture; others are represented by a phrase or a word, a photo or a cut-out from a magazine.

Regardless of how disjointed these creative ideas seem they are nonetheless valuable. Most of them will quietly reflect on the inner workings of a subconscious while others will be the result of random stimuli that may, or may not acquire permanent residence in the quarters of your brain. All these

ideas must eventually be examined and then promptly re-examined, researched, edited, sifted and challenged exhaustively until finally they can be narrowed down to a single, inner seed.

## **Observation**

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The power of observation is perhaps one of the more powerful tools in a designer's toolbox. Critical observation not only enhances the designer's visual library but it also compels one to form an opinion or a judgment.

Since this guidebook will most likely not be read by any cat, it is probably safe to write on the virtues of curiosity. The curious observer observes plenty. Plenty, however, is by no means everything. No one can observe everything. If two individuals hold before them the same still picture of a streetscape and observe colour, proportion and implied activity, they will most definitely register a different evaluation of tone, size and intension for the same still picture. Observation is a personal and largely subjective matter, contributing to the universal diversity of our constructed environment.

Observing and registering physical elements, sequences, making mental comparisons within our visual space keeps the flow of imagination and the generation of ideas constant. A keen observer will not only observe others, he or she will also observe his or her own self. When searching for a subject to pursue in a design or research project, observing the self can be perhaps the most revealing experience that will lead to the inner seed.

## **Identifying a Subject: A Hands-on Approach**

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Progressing from theory to practice, the search for subject has been divided into two branches of philosophy: the illustrative and the intuitive. The illustrative way towards finding a subject employs the power of imagery, including the image of words, to help the mind make discoveries and associations that will lead to identifying a suitable topic. On the other hand, the intuitive method calls for a journey of self-discovery into the subconscious and

is mostly suited for individuals who perform comfortably on an abstract level.

## **The Illustrative Way**

### **The Pyramid**

To succeed in the illustrative way, you must be willing to rummage through magazines, become intimately familiar with your local librarian, incessantly photograph things you find intriguing and even some things that are seemingly quite ordinary, but have an inexplicable appeal to you. Identify a theme or a general idea that you find interesting, for instance, "people interacting in constructed spaces." Collect images that bear some direct or indirect connection to this idea, either by cutting them from readily-available magazines or by photocopying them first and then cutting them out.

On the bottom of a blank piece of paper, paste in a single row some of the images you have collected. Do not be concerned with order or coherence. After you finish gluing, get up from your workstation and treat yourself to coffee, a herbal tea or an ice-cream. Upon your return, examine the images with a fresh outlook. Note any connection, disparities, lucky findings and mark them in pen. Use pens of different colour or thickness to allow yourself different levels of critical thought.

On a single row above the one you have just finished, paste your results from examining and filtering the first row. You may need to return to the library or put more mileage on internet browsing (in fact, google image library may prove particularly useful) in order to find the most appropriate images that have been evoked by the findings of the previous row. Make sure you make this new row somewhat shorter than the one before and centre it proportionally, keeping in mind that the product at the end of the exercise will be a pyramid of mixed media.

By keeping every row just a little shorter than the one before, you are enabling your subconscious to keep filtering in a controlled

Possible essay topic:  
*Enclosed or Claustrophobic: Limits of Human Perception of Comfort*

**single idea**

filtering,  
selecting,  
connecting

**zebra  
stripes  
allocate  
controlled  
activity**

**Amazing  
Perception**

overload of  
information,  
images,  
ideas,  
words,  
emotions,  
opinions

Another useful technique focuses on the power of words not just in semantics, but in their innate capacity as images. Try cutting out words, phrases or even entire paragraphs from texts written on one or more areas that interest you. Paste these cut-outs on a piece of paper in random order and orientation, or by following two or three organizational schemes which may or may not be directly related to overall content. For instance, if the areas of interest are public awareness and hospital design – two seemingly unrelated topics – you can arrange the phrases or text excerpts so that words appearing such as “system” or “work,” regardless of which one of the two topics they appear in, can be placed within physical proximity, in a parallel, vertical or even diagonal arrangement. As with the pyramid, feel free to scribble notes, impressions or feelings on your word collage.

Man is created in a single, distinct moment when the being, the core of the materials for who and what this man will develop other layers around it, but the becomes nothing more than the and grows through experience. The core. The being becomes the man in time, but to find the naked self man is left facing the naked self the knowledge of the core as se

Emotions like desire, loneliness progresses between the time of cor completion. In the midst of these change in the perception of time. If fun." Well, time may become painf

Unattainable.

Personal time

Restoring or pres to be coupled with a tricky concept of notions that are shared by the colle identified with tan debate of the aesth

The individual's pere the individual's life's own. I believe com incorporating ancien different reference p broader comparisons

action embraced by sentiment

continuum. That moment is the core contains the raw

As time progresses, the core changed. So then, the homeland being. As the being journeys return to the initial shes not to travel back ally stripped and n lesson of all.

As wise as you are now, intense as time time of dual experiences a when you're having thing that seems so

principle that needs Culture is indeed of those human ability unless tory, but when es a great role in the

and is usually hinged on comparing it to your f understanding time. By objects help to make much the mind to make much perception of time.

as far from daylight as possible

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## **The Intuitive Way**

### **Game One**

Having not exhausted the usefulness of word associations, we propose another angle focusing on a more intuitive approach. Create two lists, list A and list B. In the first list, write down a minimum of five reasons why you chose to pursue studies in design. Think back to previous years and try to recall the reasons that prompted you to your current field of study. What did you admire in your chosen design profession? What were your ambitions? What did you hope to learn? Why did you think your particular set of skills would make you successful in this area of study? The list does not need to be constructed with complicated sentences or multi-syllabic words; write things just as they hop in your mind.

A list of an Interior Architect student may look something like this:

- to create spaces people want to go to
- furniture design
- I'm good at combining fabric and colour
- to become famous
- I like art!

In the second list, list B, write down five words or phrases (concepts, time periods, styles, genres, materials, techniques etc) that have become important or interesting to you during your academic education.

The same Interior Architecture student might write:

- Abstraction
- Art Nouveau
- Concrete
- Comparison of Architectural Literature
- Spa design
- Psychology of colour



The next step would be to try to connect list A and list B by placing them side by side and allowing yourself to identify possible avenues to pursue in a research assignment. The benefits of this technique is the possibility it offers for the student to devise a topic that potentially satisfies past desires, present interests and perceived identity within the chosen design discipline.

Possible topics derived from the example lists A and B:

1. Three-dimensional qualities of renaissance art and Spa design
2. Colour choice: subliminal suggestion or practical science
3. Furniture design as a product of creative abstraction
4. Famous places, successful places: literature influences of public perception

## **Game Two**

Begin your day by noting down everything you observe from the moment you wake up, till the moment you sit to have lunch, or observe any set time span during the course of your day. Equip yourself with a handy notebook, a voice-recorder or any medium you find convenient for quick documenting. The more diligently this exercise is carried out, the larger the volume of text you will have gathered by the end of the exercise, resulting in more available material for your subsequent “diagnosis.”

The exercise may start at any time of the day and may continue for any length of time ranging from three to six hours. However, it is recommended to begin first thing in the morning, when the mind is fresh, less distracted and easier to observe. For those individuals who can recall their dreams, documenting them as soon as you wake up ensures a more accurate narration. Sketching images from dreams can be especially stirring. Award winning director James Cameron whose films like *The Abyss* and *Avatar* rely strongly on bold, fairy-tale imagery, claims that some of his most successful films were inspired by dreams.

The following is a mere guideline. In reality, the range of elements we tend to observe varies from person to person.

*Notice how your body feels when you first open your eyes. Take note of the time when you opened your eyes. Take in the space around you and observe how light enters the room. What is the ambient temperature and how does it make you respond? What does your room smell like?*

*Move the sheet or blanket from your body and observe your new reaction to the temperature of the room. Roll out of your lying position and put your feet on the floor. How does the floor feel under your heels? What sounds do you detect the moment your feet come in contact with the floor?*

*Walk towards your closet. Document the thought process behind your selection of clothes. No detail is too small or insignificant to observe.*

At the assigned end of this exercise, you should be able to create a chart and tabulate the day's observations. The chart should provide you with columns for inputs of Day, Time, Action, and Observation.

Observation may assume many forms. Some students may instinctively interpret observation as those feelings observed, or felt at any distinct moment. Some others might focus their observations on detached spatial descriptions and others still, may internalize the meaning of observation as a weaving of both feeling (or thought) and logistical narrative. Whatever direction your intuition takes you in is as valid as the next.

It is understood that there will be gaps in this observation exercise. It is almost impossible to record observations at every moment, hence a healthy balance is best.

## Day 01

### Dream sequence

Time	Action	Observation
6:17 am	Open eyes	Eyes sting, hard to focus, lower back feels uncomfortable, feeling hot under the covers
6:22 am	Focus on surroundings	Pillow knocked to the ground, must have had a restless sleep, angle of the sun exposes dust on dresser and mirror frame
6:33-6:39 am	Stare into space	Feeling listless, mind is blank
6:45 am	Roll into sitting position	

Repeat this exercise for three to four days. It will soon become apparent that the data collected daily will increase at impressive rates. There will probably not be a great revelation associated with the results as they appear on the chart, other than an enhanced sense of awareness of our surroundings and observations.

### Analyzing the Findings

Our choices and our thoughts are never random. On a basic level, they are a direct result of our subconscious workings which, in turn, originate from the specific wiring of our brain and from accumulating experience. Frequently they offer a glimpse of our subconscious universe. A keen observer may coach him or herself to identify and collect these observations, albeit disjointed; place them in a mental network and attempt to derive a narration of the inner workings of our subconscious. Exercises like the one above

offer a simple vehicle to surface poignant moments from our brain's underworld. Documenting them with words or sketches helps to crystallize these moments, allowing us the opportunity to evaluate them.

Once similarities and differences in behavioural patterns are observed, a creative mind will instinctively begin to challenge and question them. Although answers to questions like 'why have I chosen these socks' will on first approach not reveal some deep and philosophical meaning, upon further processing, they might divulge a springboard for an idea.

Keeping the sock example for a few moments longer, the answer to why this chosen pair instead of another, will probably be something as seemingly mundane as 'I like them' or 'they match my shirt' or 'my best friend gave them to me' or even 'they are the only ones I had left before laundry time.' These answers should not be disregarded as lacking in depth. They may, in fact be quite revealing in your attempt to uncover what your designer's core is made of.

If you chose to wear socks because they were given to you by your best friend, then you are likely to have a certain sentimental angle to your personality that may be more pronounced in you than in others. You might be the kind of person who values objects as a means of feeding sentiment. A sock for you may be more than just a sock. It might be an object which, at this present moment, symbolizes your affection towards a particular friend. The creative seed that could be extracted from this valuable discovery might perhaps lead to a topic subject along the lines of "Symbols as Objects of Affection."

Although, at first glance, 'symbols as objects of affection' may not seem like a promising direction because of its abstract meaning, it may, upon further investigation, develop as a fertile and delicately complicated project. A symbol as an item of representation loses its inherent attributes on many occasions and simply remains as an association or just a shortcut to perhaps something more abstract. The process by which the brain executes this shortcut is a fascinating field for design and most of its associated disciplines.

Understanding what makes a symbol successful in its task, provides valuable opportunities to question and manipulate standards of thought and to elevate the design of the symbol to an ingenious level.

Adding the concept of affection to the equation begs for a more complex research direction. Although affection, as a derivative of love, is a highly subjective notion, this should not act as a deterrent to the creative student. The subjective nature of situations is what allows the designer the possibility to explore within and outwards and become inventive along the way.

Another way to extract a seed from an exercise such as the previous one is to observe trends. These habitual trends may be thinking trends or trends of activity. Do you generally have the same thoughts, in the same sequence, combined with the same activities? For instance, how does the skin feel against the sheets when you roll out of bed and does that feeling relate to the next sensation you experience, which will most likely be the naked foot on the floor. If this is an observation that fascinates, then a likely direction for a project is the "Contrast and Comparison in a Single Body's Tactile Experience."

Observation is, on a most basic level, a passive activity. In some cases it may be synonymous to the simple act of *seeing*. You may 'see' a forest but you may not observe the trees. Once you are able to make qualitative evaluations of each tree: its height, its breadth, its shade of green, the density of leaves on the branches, the shape of the leaves, how they are held together on the branch etc, then you no longer see the forest. You *observe* it.

## **Enriching the Visual Library**

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Although observation is a skill in its entirety, one of its most direct consequences is the enrichment of the mind's visual library. While oversimplifying the complex nature of the human mind can be a dangerous precedent, envisioning the mind like a compendium, an encyclopaedia of images, in no uncertain order: The larger the archive, the richer the library. The visual library can benefit from such obvious sources

as design books, magazines and periodicals. However, the wonderful thing about the visual library is that it does not require you to spend inordinate amounts of money on purchasing books and subscribing to luxury editions of design magazines. You can have an almost equally fulfilling experience by browsing on the internet on relevant sites or even by watching television. You will be amazed at how much spatial and object information you can absorb from a daily soap-opera. Become a critical observer of what you see. Once you have developed the art of observation to a satisfactory level you must apply yourself on the skill of evaluating. Be confident in your judgment of good, bad or indifferent design.

There are endless sources of stimuli around you ranging from fashion magazines, art shows, theatre productions, to much less obvious ones like political weekly newspapers, advertisement brochures or children's language books. The object is no longer to simply observe, it is to observe with a critical eye. A good question to be asking yourself while letting the eye wonder is "how can I do it better?"

## Originality

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Research and writing projects, whether or not they are part of a design project, must confront the thorny issue of originality. Ideally, the chosen topic must be one that researches and discovers some elements that have not been previously identified or investigated. If the goal is to produce an original idea, then creativity offers a strong advantage. Although an idea may be original but not necessarily creative, both notions of creativity and originality have only a fine line separating their meanings. It should be noted that the true philosophical distinction between creativity and originality is beyond the scope of this book.

In his book *Conceptual Blockbusters*, James Adams, an engineer who in the 1960's was involved in the design of the first Venus to Mars spacecraft, wrote extensively about the mental hurdles one has to overcome in order to begin to operate on a creative level. He identifies fear of taking risks as one such hurdle and a lack of appetite for chaos as another (Adams 1979).

Fear of taking risks is a sensation every student (and professional) can relate too. Fear of entering a topic that requires an inordinate amount of work to produce an adequate result, or fear of a bad grade should the evaluating committee not view the original topic favourably. Once you identify the source of your fear, you will be in a position to better comfort yourself in preparation for taking the plunge. Working long hours into the night, minimizing time otherwise spent with family and friends are necessary sacrifices for those individuals who wish to follow the optimum trajectory to success. The other underpinning fear, which is that of receiving a dissatisfactory grade, is one that must be battled with faith and bravery. Objectively speaking, a student does not have tangible control of all the grades he or she will receive during the academic tenure. Focused and disciplined work usually works towards securing against a teacher's subjective evaluation. In conclusion, fear is a factor that must be overcome in order to unblock tensions and allow an original topic to develop.

Practically speaking, it is unrealistic to assume that any single subject, such as "Historic Preservation," or "Ecological Residential Design" can be original. These two examples are of subjects too broad to offer much original thought. They may, however, prove to be fruitful starting points, from which a particular branch, a single focus or area can be extracted and pursued. Statistically, the more qualified regarding the topic, the more original it promises to be. Limiting the geographical range or specifying a particular time-period will help enormously in finding a fulfilling and original topic. A good way to ensure originality is to look for associations within a more general subject. An example of a topic relating Historic Preservation and Ecological Design is "Ways in which Principles of Historic Preservation limit Ecological Practices."

Juxtaposing two different, seemingly disparate notions is yet another creative approach. An example of a topic exploring such a relationship may be "Graphic Design and International Diplomacy," examining the influence of printed matter issued by government bodies to foreign states. Contrasting ideas or vantage points, if handled in an intelligent, balanced manner,

may show great potential. It may not be the actual ideas that appear contrasting, but the lens by which this relationship is to be examined may simply be different to any that has been applied up to this point. For example, a student may choose to examine how the literary image of Edgar Allen Poe has been influenced by the illustrations in his earlier publications.

Originality itself may lie not in the fabric of the topic but in the methods used to investigate. If the chosen topic is, for instance, racism in films, then an original way to approach it would be to invite test subjects to watch a series of racially charged films in a language they do not speak. A carefully constructed questionnaire (see page 60) should provide sufficient material for a unique research and writing assignment.

### **Aims and Considerations**

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It is important that the project's scope is sufficient to fulfil the assignment's requirements. If the assignment is a research essay of ten thousand words, the subject of the project must have enough breadth and depth. Similarly, the subject must not be too vague or ambitious to be contained within the predetermined length. A design thesis is usually a year-long project and so the student must feel confident that the chosen topic will be challenging enough for the duration.

A consideration sometimes overlooked is the impact the choice of subject will have on the student's following tenure as well as on the curriculum vitae. If you choose in your second year of studies to write a research paper on, say, "Principles of Islamic Architecture" then it is important to evaluate what, if any, future potential this topic has on your overall academic performance. Since this topic may easily provide a threshold for the final year thesis, you must also consider whether the topic has the potential to fulfil a thesis assignment. If you feel confident that the chosen topic is strong enough to showcase your skills and assets, then a useful exercise would be to make a list of these talents and abilities which the chosen topic will promote. This list will help in keeping focus throughout the research project. A list may look a little like this:



- good with numbers and statistics
- opinionated, able to apply critical thought
- use sophisticated words and expressions
- well-organized

Additionally, a list of your shortcomings, such as 'bad in grammar' or 'slow reader' should be kept handy to remind you of potential setbacks.

As mentioned earlier, a reasonable concern is whether the research paper which may lead to the final year thesis, sufficiently promotes your skills and interests to make you more employable. Often the choice of thesis topic tends to encourage the potential employer whose practice may also be exploring parallel interests. The reverse is also true: a potential employer may find the thesis topic too disparate from his or her own line of work.

There is a certain element of risk in any chosen topic, particularly if the topic is to be pursued as a thesis project. Constant reappraisal of the chosen subject is paramount. For instance, a topic that focuses on making extremely unlikely connections or that is grounded on theories which are purely speculative might seem highly original and potentially fruitful, but in most cases, the result fails to convince the reader. This negative possibility will most likely become transparent at some point during the course of your research. Once this possibility presents itself, then it is best to move on to a different area of study. Although the process of conducting research will be examined in greater detail in Chapter 3, it is important to address these considerations at the outset when selecting the topic. In order to minimize the likelihood of going astray, you must constantly re-evaluate the content during the course of your research and always feel confident that your topic can answer the following questions:

- What is the aim or the purpose of a research and writing assignment on the particular topic?
- Why is the aim or purpose significant?
- Is this investigation relevant to existing knowledge, practical needs, personal agenda or interests?
- Is the potential knowledge acquired intended to complete a gap

in existing knowledge, build on previous knowledge or show inadequacies in previous research? In other words, what new and in what ways essential knowledge, will be provided by investigating this topic?

## **Finding Direction in a Research and Writing Assignment**

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Although in some cases the type, the length and even topic of the research and writing assignment is determined by the course outline, in other instances the design student is called upon to commit to his or her own direction. Thesis or dissertation students do not need to decide on a writing style, since the writing segment of their thesis project is more or less determined by the context of the actual design product. While the thesis student is expected to present the theory used based on the premise of the project, document the process and the result, most other design courses of history and theory that require the student to produce a research and writing assignment will require a particular type of essay. Less frequently, you will have to choose the type of essay you wish to tackle. The following are some possible directions you may take when en route towards a research and writing assignment.

- Historical Survey
- Expository Writing
- Argumentative or Persuasive Writing
- Theory and Criticism

There are quite possibly other types of assignments that design students will have to cope with during their academic tenure which are prescribed by the needs of specific courses. Once you acquire the skill of critically approaching an assignment with systematic care and precision, then you should have no problem completing the task successfully.

## Historical Survey

The real talent behind a historical research assignment goes beyond identifying as many significant moments in time as possible and presenting them in a reasonable chronological order. It takes a competent and creative author to take dry historical facts and to weave them into a sensational narrative. A historical essay of high quality is only achieved when the events portrayed are presented in a meaningful socioeconomic and cultural context, often leading to a chain reaction of associations and surprising discoveries. For instance, the advent of the International Style in the twentieth century cannot be viewed separately from the conclusion of the First World War and the impact of human and material loss and cultural defeat which led to a re-thinking of all basic principles of design.

Few design disciplines reflect societal circumstance more strongly than Film Studies. For instance, tracing the race and ethnicity of the quintessential villain in twentieth century American film is an example of a pursuit in historical essay that mirrors a wide range of cultural and political issues. Other students of Film History will observe that historical evolution is at times so intertwined with social development that it is unclear whether film is influenced by life, or vice versa. All these fascinating and significant revelations occur while the student approaches history, not in the format of notable historical facts, but in terms of dynamic, multilateral social processes.

Historical research provides a valuable point of reference to all design students and practitioners, for there can be no progress without precedent. Even designers who advocate the benefits of *tabula rasa*, the principle by which design functions at its best when its starting point is devoid of pre-existing influences, depend, on some undetermined level of consciousness, on history to provide perspective to their work. Notwithstanding the importance of the correctly set historical background, the student must beware! A historical essay should not be dominated by personal opinion. Although critical thought shows a level

of competency that generally serves to impress the audience, critical essays are a better means of promoting this particular skill.

## Expository Writing

Any type or written discourse used strictly to impart information, to explain or describe is called exposition. All non-fiction writing is expository writing. An expository text aims to provide a clear narrative explanation or analysis of a topic, an idea or a product. Since the author is required to assume that the reader has no prior knowledge of the subject, essay organization is the key. Careful and accurate use of vocabulary is also important, making sure that all technical terms and acronyms are defined or explained the first time they appear in the text.

It is sometimes useful to approach expository writing as if you are writing a manual for a home appliance. Issues that are important in a successful expository essay are:

- A clear abstract or introduction presenting the topic and the target of the assignment including a brief mention of the means by which you propose to pursue your chosen task. For instance, if the topic is "Paperclips and Design" (Petroski 1996), an appropriate opening paragraph would be the following:

*Although the paperclip is a seemingly simple object, an investigation dedicated to its design provides valuable lessons in engineering and product design. This paper aims to reveal the complex nature of the design of the common paperclip by presenting the stages of its invention, design, engineering and manufacturing through scientific research, diagrams and historical notations. Empirical issues of proportion and design and Hooke's Law of Elasticity will be discussed at length, as well as the economy of raw material and other environmental concerns.*

- Terms, concepts, acronyms must be provided as early in the text as possible. Theory must be explained in a clear, detailed but not condescending manner.

- Where historical data is relevant, appropriate chronological order should be maintained.

## **Argumentative or Persuasive Writing**

Writing an argumentative essay aims at taking a stance on a topic and assuming the responsibility of persuading the reader that your opinion, as the author of the essay, is the correct or most appropriate one. For an argumentative or persuasive essay to be successful, the argument must be delivered in a balanced and informative way while providing all necessary background, theory and relevant controversial standpoints, thus helping the reader form an educated opinion. You must also show competency in drawing reasonable conclusions according to facts and not personal experience or supposition, while sources must appear as objective and as reliable as possible.

The argument chosen for the assignment does not necessarily have to conform to general, mainstream ideas. In fact, some of the most interesting persuasive writing has been produced on ideas that are unusual or even highly controversial. Architect Adolf Loos' influential essay from 1908 titled "Ornament and Crime" took the international design community by storm when he promoted abolishing any ornamentation from all useful objects. He proclaimed that ornamentation inevitably causes the objects to go out of style and subsequently to become obsolete. Thus decorating objects with non-functional elements constitutes wasted efforts and is criminal and immoral. In order for you to be successful in your argumentative writing, you should consider structuring your assignment as follows:

- Briefly introduce the topic and present the opinion promoted by the essay through a strong thesis statement or an abstract
- Explain by means of research the premise of the argument in a clear, expository format, making sure the reader is provided with all relevant data, allowing him or her to take a position
- Expand on the argument, basing it as much as possible on logic, facts and science

- Present and discuss opposing opinions in a neutral way
- Juxtapose the truth of your argument against opposing arguments
- Provide a conclusion by restating the thesis statement and summarizing all main ideas

It is believed by many scholars that because of its provocative nature, persuasive or argumentative writing belongs to a unique category of stylistic writing. Keep in mind that an essay which starts with a strong, punchy statement or a quirky, stimulating question puts the reader in an excited, anticipatory mood. Opening sentences like “Pictures with colour are the poor man’s drug to an ailing creativity and endangered imagination” is an effective way to present arguments on whether classic black and white films should be colourized.

A quote which is meaningful and appropriate is another clever way to open an argumentative essay, e.g. “I can’t understand why people are frightened of new ideas, I’m frightened of the old ones.” This quote by American philosopher, composer, artist and printmaker John Cage offers an interesting setting to an essay on controversial imagery on display advertisements.

## **Theory and Criticism**

Although writing assignments pertaining to theory and criticism fall within the realm of the fine rather than the applied arts, they nevertheless provide a valuable lens by which to evaluate and discover unique perspectives in design theory. For the purpose of design education, theory and criticism are disciplines that exist symbiotically. You cannot write a critical essay on design and not base it on theory. Similarly, an essay on design theory which does not offer a critical perspective is in fact, an expository essay.

Although theory is the polar opposite of practice, it is imperative for both theory and practice to coexist in order to produce a meaningful whole, a good design. What, then, is good design? It is a product of any measurable or non-measurable scale which provides a

service, executes a function or communicates a message through direct and efficient means. There are a number of qualifiers to the latter statement that pertain to creativity, aesthetics, and environmental concerns which lie outside the scope of this guidebook. However, it is universal to say that a good designer can neither proceed towards the creation of a good design, nor practice good design, unless he or she has a clear understanding of the theoretical premise of the design target. Due to its subjective, non-practical nature, a theory is hardly ever accepted unanimously by parties concerned. Translated from ancient Greek, theory is derived from the verb meaning “to see” or “to look” whereas in philosophy, the term theory has gradually taken on the meaning of contemplation or speculation; as such, theory is a notion that is inherently challenged and constantly disputed.

This is good news for the design student and his or her quest for direction in the research and writing assignment, since the bias of theory presents itself as fertile ground for critical expression, investigation and original thought. Consider how educationally rewarding an assignment arguing the validity of Heidegger and Hegel’s statement that modern age is “art-less” (Young 2001) and what the relation of art to contemporary design could be. The value of such an assignment lies partly in your capacity to research and present the theory behind Heidegger and Hegel’s testament to modern age art and contemporary design, but most importantly, it lies in your critical approach and personal evaluation, offered with intelligent, realistic arguments.

Theory and criticism in design look beyond historical and social circumstance, while concentrating on more formal, stylistic, abstract and conceptual attributes. However, a successful essay of theory and criticism does not necessarily have to delve into philosophy, cumbersome literature or abstract ideas. A healthy topic may be one that addresses more tangible issues, such as current theories of sustainable design and how these are marketed and promoted to serve global political agendas. Here again, thoughtful criticism is crucial.

## **Concluding Thoughts and Ideas**

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Although academia is perhaps the most appropriate ground for raising questions on any issue imaginable, for questioning history, politics and status quo, both students and educators inadvertently seek to ask questions that are fraught with deep, philosophical meaning and sophisticated nuances. These types of questions, although inherently valuable, tend to overshadow the intrinsic merit of such seemingly simple questions which every designer should be able to answer for his or herself: What am I like? What are my likes and dislikes? Why have I chosen to become a designer?

A research and writing assignment is a good place to begin to address these private questions. Whether you are an aspiring architect, graphic, apparel, product or any other type of designer, academia is the place where these personal quests should start to be investigated. Make no mistake about it: this internal investigation is a life-long process that carries through on various levels of consciousness. For this reason, finding a topic and determining the direction of your research and writing assignment is likely to be the most frustrating, yet fulfilling part of the assignment process and perhaps of your entire academic tenure.



# Writing the Proposal

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The Proposal is a carefully prepared document submitted to the evaluating authority at a pre-specified time. Broadly speaking, the Proposal serves to communicate the subject matter, the aims of the written assignment, the methods or approach proposed, a preliminary list of chapters, sources and a timetable. It is an integral part of the written assignment because it acts as a course of action, a map to be followed so that the student does not stray in useless, non-profitable directions.

## Basic Proposal Structure

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The Proposal is a time- and energy-efficient vehicle towards a better research and writing assignment. It sets forth a plan of action in as little as one page and in some cases, as many as twenty.

The model skeleton of a basic Proposal for a research and writing assignment is composed of the following elements:

1. Title of subject matter
2. Statement of research subject or proposed study
  - Identification of object of study
  - Significance of study
  - Relevant background information
  - Key research questions
3. Research method and methodology
  - Overview of the study approach
  - Sources and references
  - Timeline
4. Contents list
  - Chapters or topic breakdown

It is unspoken, yet implied that the methods, the list of chapters, the sources and timetable are unlikely to be followed with constricting loyalty. Much of the development of these elements will evolve

according to research discoveries. In fact, a flexible attitude towards them is imperative to acquire best results. The adaptable nature of methods, chapters, sources and timetable should, however, be in direct contrast to the firmness and commitment that must be exhibited towards the actual subject matter. From this, it is implied that the subject must be chosen as honestly and as thoughtfully as current circumstances allow.

### **What, Why, How**

The model skeleton chosen by the authors of this guidebook is by no means exclusive. Depending on the type of assignment, duration and academic level, the skeleton of the proposal changes accordingly. The form of the plan sometimes depends simply on the individual requirements of the course instructor or the evaluation committee. There are, however, certain elements that are vitally important in a Proposal and remain unchanged from variation to variation. They involve:

- What
- Why
- How

*What*, refers to the topic in its general sense. If the subject of the project is “*Colour Psychology: Designing Chocolate Wrappers*” then the *what* is colour psychology and chocolate wrappers. If “Feasibility and Success of Sensory Branding” is the title of the project, then the *what* is sensory branding.

*Why*, represents the question: *Why does the author pursue the chosen subject*. This is perhaps the most crucial element of the what-why-how triad. A strong *why* ensures the originality of the assignment, giving purpose and direction to the entire endeavour. It allows the design student to exhibit creative thought and inventiveness. The *why* depends much on the writer’s personal explorations into his or her chosen field.

Following the example mentioned earlier, the *why* in the “*Colour Psychology: Designing Chocolate Wrappers*” may be answered by any of the following statements:

- To provide an in-depth study of colour psychology where the

design of chocolate wrappers is used as the vehicle to trace and test the various theories explored

- To establish whether chocolate wrapper design is influenced and to what degree by colour psychology
- To document a historical survey and future predictions of chocolate wrapper design where psychology is used to explain patterns and trends
- To provide practical guidance in successful chocolate wrapper design

The *how* is the backbone of the project because it refers to the approach the author chooses in order to pursue his or her intentions. Depending on the argument put forth by the *why*, the author must establish the methods and ways that best support the project's quest. Lingering a moment longer on the previous example "Feasibility and Success of Sensory Branding" the design student may choose to explore the topic through the following sequence of study:

1. Provide a current study on brand image and awareness
2. Explore and discuss the correlation between sensory stimuli and human behaviour
3. Develop ideas and design proposals on sensory branding
4. Conduct a questionnaire survey within relevant target groups
5. Extrapolate results to attain a qualitative and quantitative result
6. Conclusions

## Proposal Structure Explained

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The *what-why-how* triad is a useful and flexible guideline for design students who are more experienced in written assignments. Students who delve into the realm of theses, dissertations or any generic research and writing assignment for the first time might require a more detailed approach towards writing the Proposal. Those students should take the following section of this chapter

as a point-by-point breakdown of the most important elements of the Proposal.

### **Title of Subject Matter**

It never fails to amaze that an item so small in comparison to the overall volume of the assignment may take so much time to pin down successfully. Consider the difficulty movie-makers have when baptizing their films: a film title must be punchy, catchy, memorable, and must be unequivocally relevant to the subject matter of the film. In order to achieve all the above, the number of words must be kept to a minimum. As most Film Studies' students will profess, movie titles such as Stanley Kubrick's *Dr. Strangelove; or How I Learned to Stop Worrying and Love the Bomb* may be considered a classic among Peter Sellers' fans but the film's name has done little to propel it to cult-worthy fame in the same way as, say, the Pink Panther movies. Books that appeal to the general audience tend to follow similar patterns.

Luckily, criteria for successful titles for most expository writing, including theses, dissertations and other research and writing assignments are not as limiting because focus is set less on their punchy and catchy nature and more on how relevant, informative, concise and accurate the titles are. A title that is as specific as possible helps orientate the reader and allows him or her a better opportunity to formulate the correct questions whose search for answers will guide the reader through the essay. Titles such as "The Suburban Home Companion: Television and the Neighborhood Ideal in Postwar America" by Lynn Spigel (in Colomina 1992) prepare the reader for the main topic which is television, the social and architectural context (which is suburbia), the timeframe examined (post 1945) and the location of the study (America).

There is a catch: an overzealous title, with a detailed sub-title like "Rejuvenating Underdeveloped Zones between Residential Communities and Industrial Areas by the Use of Environmentally Sustainable Design" may prove to be quite limiting at this early stage of the assignment. Subsequent research may take the chosen topic to a different, more fruitful direction. A more generic

title such as “Community, Industry and Nature: Restoring the Link” may be a better choice for the purpose of the Proposal.

### **Statement of Proposed Study**

Also known as the thesis statement or statement of intent, the statement of the study is where the topic is introduced in the form of goals and intentions. The student must present his or her aims in a clear and purposeful manner. Let us assume, a Product Design student plans a research assignment titled “Design by Failure: Pressure Vessels and Aluminum Cans.” In the statement of the Proposal, the student must first *identify the object of the study*. In this case, the object is to examine failure criteria and their crucial contribution to engineering design (Petroski 1996). The object is to be presented and explained in conjunction with the importance of aluminium cans as pressure vessels within this area of study.

The statement of the proposed study should include a section on the *significance of the study*. It is often useful to consider the significance of the study as a sentence beginning with the words:

The purpose of this study/assignment/thesis/dissertation is...

*Or*

In this study/assignment/thesis/dissertation, the topic of...will be investigated.

E.g. The purpose of this study is to provide insights on how failure considerations influence product design and how this approach has led to pressure vessels performing ergonomically, economically, environmentally and aesthetically.

If the student is able to phrase his or her assignment based on either of the previous examples, or similar ones indicating purpose and intent, then their assignment is on the right track. The significance of the study should be presented in a concise paragraph (*abstract*, see Chapter 4) or it may take as much as a page. It can also

be in point form or in complete sentences with reference citations.

*Background information* is also important in providing a better understanding for the reviewer of the Proposal. Vocabulary mentioned in the Proposal that is particular to this study must be explained as clearly and as concisely as possible. It is a common temptation among students to transfer entire paragraphs of background and historical information from encyclopaedias and other resources onto the Proposal. Although it is almost impossible to prescribe how much or how little background information is required for a well-rounded Proposal, a general rule would be to try to keep it within three to four paragraphs.

To provide a dynamic element to the Proposal, it is often useful to include a series of *key research questions* which plan to be answered in the final assignment. For the Product Design student of the aluminium can assignment, some of the questions may include:

- How is a pressure vessel expected to perform?
- What are the projected failure criteria for aluminium cans?
- How have design and structural details developed in order to improve the product's behaviour?
- How does aluminium compete with other materials such as steel?
- How do financial concerns determine the design of the aluminium can?
- What environmental issues are involved by the use of aluminium in pressure vessels?

### **Research Method and Methodology**

Method and methodology correspond to the *how* question, described in page 45. Although these terms are often used interchangeably, each of them carries a different meaning. Method refers to a particular and systematic procedure towards attaining a goal whereas methodology is a term used to describe a system or an assortment of methods used in an area of study or activity. Put colloquially, if method is a tool then methodology is the toolbox.

## Overview of Study Approach

The method, or study approach is always determined by the needs of the writing assignment. A healthy place to start in determining the method of investigation is, where relevant, to set geographical and temporal boundaries and limits. Then proceed to separate the study in manageable blocks which may later prove to be logical chapter divisions. These blocks may refer to stages of process, time periods, design styles or any other groupings that deliver reasonable conclusions. An Architecture student choosing to investigate the legacy of H.H. Richardson in the architectural tradition of Boston, may address the topic in the following ways:

1. Determine the time frame of the investigation (e.g. post Civil War to the present)
2. Suggest a timeline of architectural trends in Boston
3. Discuss socio-economical and other influences which may have affected the aforementioned trends
4. Place H.H. Richardson's architectural presence within the timeline
5. Discuss H.H. Richardson's architectural persona among his peers and his contemporaries
6. Conduct a survey of physical manifestations of his influences within the greater Boston area
7. Trace elements of his professional tradition in the work of subsequent architects practicing in Boston
8. Place architects who have been influenced by his work within the suggested architectural timeline of Boston
9. Present physical and abstract evidence of the influences of H.H. Richardson's work within the timeline
10. Deduce and discuss conclusions

Although the above list adequately describes the stages in which the student will approach the study, it says remarkably little of the *methodology* planned to be used. It may not always be feasible for the methodology to be specified, particularly before research is commenced. Many sources might prove to be dead-ends while others will appear accidentally and offer break-through ideas. However, a noble attempt towards determining the methodology is the following:

- Study books available in local public libraries and in university libraries on the topic of post Civil War American architectural history, Boston architectural history, social and economic history of Boston and Massachusetts
- Use the following sites to obtain relevant journal articles:  
The Reader's Guide to Periodical Literature  
<http://www.hwwilson.com/Databases/Readersg.htm>  
ProQuest  
<http://www.proquest.co.uk>
- Specialized encyclopaedias and biographical dictionaries will be used to obtain relevant background information
- Search for dissertations on Dissertation Abstracts International  
<http://www.proquest.com/en-US/catalogs/databases/detail/dai.shtml> and  
<http://library.dialog.com/bluesheets/html/bl0035.html>
- Contact the architectural office that succeeded H.H. Richardson, named Shepley Bulfinch and request relevant drawings, manuscripts, interviews and correspondence
- Interview via Skype and correspond via email with university professors and other leading authorities on H.H. Richardson and the architectural history of Boston



## Sources and References

Sources and references refer to a list of all publications and other planned media to be used, including television programmes, art shows, interviews, questionnaires etc. Each type of source should be grouped separately and within each group, the items should be listed alphabetically and in the correct format as described in further detail in Chapter 4.

Composing this list is a comparatively simple task: a library search or an exploration of sources on the internet will reveal a substantial percentage of titles of available printed matter. This list will actually represent more than just a starting point for the research to follow, but it presents the opportunity to the teacher, advisor or evaluating body to offer useful suggestions, additions or other options that will make the Source and Reference list richer and more comprehensive.

## Timeline

It is critical for the purpose of good planning, that all deadlines for the assignment are clarified well in advance. You are advised to construct a task list where all sections are assigned days of completion. Juxtaposing these days to a calendar will provide the timeline to be presented in the Proposal. Let us assume that the study of Richardson and the architecture of Boston is a semester-long project and that the expected output is in the range of 20,000 words.

### Task list:

- Library search for books on architectural history and socioeconomics: **4 days**

- Internet search of published material: **1 day**
- Email requests for copies of journal articles, interviews, dissertations or television programmes: **1 day**
- Contact with Shepley Bulfinch: **1 day**
- Study printed matter and view other media: **10-15 days**
- Plan Outline: **1 day**
- Produce first draft (about 15,000 words): **5 days**
- Allow 5 days for advisor or peers to offer comments
- Complete final version: **4 days**
- Printing and binding: **2 days**

To produce the timeline, the days of the task list are then applied to a calendar so that they now correspond to actual calendar days. Including or excluding weekends depends upon the individual student's preference and on the assignment's schedule.

When assigning days to a particular task, it seems more realistic to assume that one day provides around six hours of work. This allows you to budget your time so as to accommodate other lessons and responsibilities.

To better estimate the number of days required to produce the actual writing segment, first assume that an A4 page fits approximately 550 words written in font size 11. If the target number of words for the assignment is 20,000, then divide 20,000 by 550 to calculate the number of pages required. This yields approximately 36 pages. You should estimate your capacity and writing speeds to determine how many days it will take to complete 36 pages of text. Once it is established that you can produce about six pages of text per day, then it useful to set this as a daily target.

As the plan outline is completed, the overwhelming task of

the writing part of the assignment suddenly does not seem as daunting. Keeping plans, schedules and timelines may seem secondary to the not-so-experienced student, but those who have tried and failed on less structured habits, will immediately see the benefit of a thoughtful, programmatic proposal. However, the truly intelligent and crafty design student is the one who will not only put together a concise Proposal but the one who will be able to continuously re-evaluate it and examine it under some scrutiny so as to maintain it as flexible and relevant as possible.

# Conducting Research

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James Snyder, an architect who in 1984 wrote a book titled *Architectural Research*, suggested that research is a “systematic enquiry directed towards the creation of knowledge.” The significance of this statement lies firstly in the assertion that research is above all, a systematic activity, in contrast to passive reading, writing or observation. Secondly, the description “creation of knowledge” implies a targeted approach towards a specific goal (Groat & Wang 2002).

In addition to the creation of knowledge, research also serves to provide the necessary background for the successful completion of the project, whether it is a thesis project or a research assignment. This involves conducting research for a much wider spectrum than the research question requires. A thorough understanding of the background supporting the research is imperative. Sketchy, incomplete knowledge can be identified by the audience, thus casting suspicion or even discrediting the entire body of work. Think of the research process as an icing cone used to decorate cakes. The icing cream, or information, enters the cone’s wide end in large, haphazard volumes and it exits the narrow end in a trim, streamlined form. Consider the neatly formed outcome to be the final product - the research. If the cone is not filled with enough cream, then there is likely to be insufficient material to squeeze out in a slick shape.

You know that you have a firm grasp on your topic if you can explain it to your friends in ten sentences or less after one or more drinks. If your friends’ eyes are still focused on you when you finish your explanation, then it is safe to assume that you are on the right track.

## Sources

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The choice of possible sources used in academic research is endless. Informative sources range from the most conventional, such as books, to other, more alternative possibilities. Alternative

options include television documentaries, art shows, apparatus manuals, urban legends etc. The following section discusses ways in which the benefits from some of the more common methods can be maximized as well as introducing some less common, but potentially useful ways. While feverishly researching towards the chosen subject, it is important to regard everything as a potential source.

## **Books**

General encyclopaedias provide a great starting point. They will usually provide a good basis for relevant information, including perhaps not so directly relevant, background information. Encyclopaedias are the best place to search for concise explanations of terms, phenomena or to provide historical data. Several reputable encyclopaedias are released in CD format or can be found online, but specialized encyclopaedias are not as easy to find and may require some time and money budgeted aside for travelling to libraries which are within driving distance.

Once you have accumulated enough broad background information, you should proceed to more specialized sources. If you have taken a class where the chosen topic has been discussed, then you may retrieve relevant readings or articles and take note of any bibliography mentioned. Looking at the bibliography of books or articles will lead to other useful books or articles and before you know it, this trail will help produce the Preliminary Bibliography.

Finding the books which are identified as useful is a time-consuming process. You must familiarize yourself with the system by which information is organized and accessed at your local or university library. This may prove to be quite a challenging task – it should come as no surprise that university degrees are awarded in the field of Library Science. Libraries commonly employ students and other professionals to help familiarize visiting students of the particular ins and outs of their library system.

When trying to establish a book's relevance, it is useful to keep in mind that book titles tend to operate under the illustrious umbrella of poetic license. For instance, the book *The Granite*

*Garden* by Anne Whiston Spirn has little to do with monolithic garden design, but rather it provides an intelligent understanding of the natural settings of cities in order to create better urban environments. Unfortunately some library databases do not furnish any information beyond the general category, book title, file number and stack location. Consequently, by the time you find the book you suspect is relevant to your research, you might realize that it holds little or no value at all. For this reason it is always useful to read as much auxiliary information on a book while still at the library terminal or at your personal computer.

### **Periodicals, Magazines and Journals**

For the purpose of accuracy, it is useful to take a moment here to discuss the difference between periodicals, magazines and journals. A periodical is any publication which is issued at regular intervals, for instance daily, weekly, monthly, bimonthly, quarterly etc. Periodicals are divided into two groups: general periodicals, also known as magazines, and specialized periodicals, known as journals. Magazines are periodicals that offer popular articles on a variety of subjects and they usually target a wider audience than journals. On the other hand, journals or specialized periodicals publish articles concerning a particular subject area.

A comprehensive bibliography on any topic is incomplete without any periodical references. Information found in magazines and journals is invaluable because it offers the advantage of up-to-date sources. Periodicals often publish two or more conflicting sides of a controversial matter, thus providing valuable insight on critical thinking. Periodical articles also provide information more concisely and succinctly and often with better illustrations.

If the local library is not particularly extensive, journals may be difficult to locate. Although specialized and more focused information is mostly found in journal articles, there are a number of design magazines which are widely available in bookstores and kiosks. Since design and its lateral disciplines are popular fields among many enthusiasts with no formal design education, it is significantly easier for designer-researchers to go about their

business than it is for a researcher of, say, cognitive science. Articles found in magazines such as *Wallpaper* can prove to be tremendous resources of up-to-date information. However, the difficulty associated with magazines at local retailers, making them an unreliable source, is the fact that once a research topic has been chosen, there is no guarantee if and when a relevant article might appear within the required timeframe.

### **Conference Proceedings**

A conference is a meeting or a series of meetings among academics and professionals to discuss and present their work. A seminar, workshop, symposium, forum or a summit are all events of similar nature. The name chosen to describe it communicates the volume and the type of experience of the participants.

Although conferences are a great opportunity to gain exposure in your chosen field and mingle with fellow students and colleagues, it is often not possible to attend. Fortunately, the body of work presented at the conference is issued either before or after the event. This collection of presented papers, known as the conference proceedings, is sometimes published in book or CD format and some are even available on the internet. To download them from the internet, a nominal fee may be required.

### **Dissertations**

Other academics' dissertations are a useful resource as they not only provide an in-depth investigation of a topic within a specific field, but they also serve as a paradigm for the formal structure of a completed dissertation, thesis or writing assignment. Theses may yield some useful information but since they generally involve original work whereas dissertations usually entail the research, assembly and evaluation of existing literature, then dissertations offer a better chance of uncovering useful information. Dissertation abstracts can be found online at sites such as ProQuest and Dissertation Abstracts International. Most of the sites offering dissertation catalogues normally list the title, a brief description and the abstract. In order to download or receive the entire dissertation

via post, a subscription fee must be deposited.

## **Interviews and Questionnaires**

On an academic level, interviews and questionnaires are amongst the most popular instruments of data collection. They can be a particularly useful addition to any design project since they can contribute an angle that is completely original. On a more philosophical level, creating a channel of communication between the designer and the demographic he or she is potentially designing for, represents the essence of distinguishing applied arts from the greater spectrum of fine arts. Where Fine Art products focus less on function and more on aesthetics or narrative values, applied arts are applications that adhere to aesthetics, form and function and are intended to be used, exploited and enjoyed by all mankind. Based on this axiom, it is simply crucial that the designer is fully exposed to the opinion, preferences and habits of those for whom his or her creations are intended.

### **Interviews**

For students who are inherently shy and reserved, interviews may seem like a daunting task. One way to tackle any lingering feelings of insecurity or nervousness is to follow a set of recommendations put forth by the authors of this book, both of whom were noted for their deep-rooted shyness and guarded personalities during their student days.

Arranging the interview well in advance allows you enough time to adequately prepare for the meeting. Getting ready for the meeting does not only include having a solid knowledge of the subject of the interview – this is an all too obvious prerequisite. You must be familiar with the professional profile and performance of the interviewee. If the interviewee has written any books or has contributed to journals or other published material, be sure to be well versed in his or her work. If time allows, make a point to read the articles or the front and back subject matter of any books beforehand. Being acquainted with the interviewee's work will create a more intelligent impression and will also encourage the interviewee to be more forthcoming and generous



with his or her time.

The questions must be planned well and in advance and they must be structured in such a way so as to allow you to take control of the interview. Although structured questions are important in maximizing efficiency, it is also useful to permit a certain degree of flexibility. The interviewee may want to share information that may not seem directly relevant, but may prove to be worthwhile in a more passive or global way.

If the interviewee poses no objection, it is best to have the interview recorded so that valuable points are not missed and to minimize the possibility of misinterpretation. As a courtesy, try not to interrupt and resist the temptation to complete the interviewee's sentences in an attempt to sound intelligent. Another courteous gesture would be to send him or her a copy of the final research product.

## **Questionnaires**

Be mindful that questionnaires and surveys sent via email, fax or regular mail generally have an extremely low response rate. The best responses usually come if the respondent is taken through the questionnaire by another individual, preferably the author of the questionnaire. If, however, time constraints prevent the face-to-face approach, then the author of the questionnaire must make sure to accompany its delivery by a courtesy phone call and perhaps a reassuring note on the top of the questionnaire affirming that the time commitment required by the respondent will not exceed five or ten minutes.

When putting together a questionnaire, you should consider the following:

- How wide a sample of the population is needed?
- Is there a target group to be approached or will the selection be random?
- Is sex, age, race, degree of education or any other distinction important?
- How will unanswered questions or questionnaires be evaluated in the statistic?

There are two types of questions featured in questionnaires, the open (or unstructured) questions and the closed (or structured) questions. Each serves a separate function and ideally, a successful questionnaire should have a healthy combination of both. Closed questions are structured so as not to allow the respondent to qualify his or her answer. The answer is selected from a set of predetermined responses; conversely, open questions allow personalized input by the respondent such as thoughts, opinions and preferences. This type of questioning is valuable in order to enable the respondents' opinion to surface, but the results must be treated with care because it is considered quite likely that the opinion of the respondent may be influenced by the experience of completing the questionnaire (Newby 2010).

When structuring a questionnaire or a survey, it is important to decide who the test subjects are, as this will determine the style and the phrasing of the questions. If the research project at hand is "Fashion and Identity in Public Schools" and if the target group is ascertained to be children studying in public schools, some sample questions may be:

1. What are the three most important items in your wardrobe?
  - 
  - 
  -
2. At what age did you begin to choose what to wear for yourself?
  - a) 7-10 years old
  - b) 11-14 years old
  - c) 15-18 years old
  - d) Other
3. When do you begin to consider what to wear the next day?
  - a) Plan attire at beginning of the week for all school days
  - b) The day before

- c) The night before
- d) As soon as you wake up
- e) Five minutes before leaving home
- f) Other

4. Do you dress with the intention of feeling
- a) Comfortable, practical
  - b) Elegant, smart
  - c) Attractive to the opposite sex
  - d) Alternative, different
  - e) A combination of answers \_\_\_\_\_
  - f) Other

5. Do you have a different set of clothes intended for weekend wear?
- Yes \_\_\_\_\_
- No \_\_\_\_\_

If the answer to question 5 is yes, then please proceed to questions 6 and 7. If the answer is no, then proceed directly to question 8

6. Describe ways in which weekend clothes differ from school-day clothes:
- - 
  -

7. When dressing for weekend outings, which of the following describes the intention?
- a) Comfortable, practical
  - b) Elegant, smart
  - c) Attractive to the opposite sex
  - d) Alternative, different
  - e) A combination of answers \_\_\_\_\_
  - f) Other

Notice that questions 1 and 6 are open questions whereas questions 2-5 and 7 are closed. When considering closed questions, it is best to allow the respondent to opt for an answer including all available

options or none of the above.

As mentioned earlier, the style of the questions largely depends on who the test subjects are. Continuing with the previous example, if the respondents are school teachers, then a series of more appropriate questions should be considered, such as “do you think clothing is a form of code between groups of people?” or “how often does family background determine the type of persona the students choose to project through their dress style?”

Always remember to keep the questions short and not to introduce more than one idea into each question. For example “Do you think men’s attitude towards their personal attire differs to that of women’s and does this discrepancy increase or decrease with age?” This question is problematic on two levels; firstly, it poses two questions in the space of one and secondly, the last segment actually implies the answer to the first one. Phrasing questions for questionnaires seems deceptively easy.

It is also important to ensure the accuracy of the question. Words must be used carefully and explanations should be provided when necessary. It may be useful to first test the questionnaire on an unsuspecting family member or a friend who is unfamiliar with the subject.

### **A Word about the Internet**

Although books have traditionally been the quintessential starting point of any research, their position of importance has promptly diminished by the advent of the internet. The internet offers unparalleled proximity and access to information on the World Wide Web. It is a terrific resource when searching for book titles, authors, or institutions of individuals specializing in a particular field. It also offers a means to stay in touch with events and current affairs.

As with all tools, the internet has to operate as efficiently as possible in order to attain maximum yield. In other words, the output of Google and Google Scholar, as well as other search engines, will

only be as good as the input provided. If a term is typed in and the number of results is extraordinarily large, this is an indication that the search is too wide to prove helpful and must be narrowed down and further refined. Most students of the twenty-first century have become so adept at employing their personal computers and the internet in their studies that any attempt by this book to offer constructive guidelines will seem feeble at best, and patronizing at worst. There are, however, several books written by professionals that offer a serious approach at maximizing the benefits and possibilities of internet research. Such a book is *The Internet Research Handbook: a Practical Guide for Students and Researchers in the Social Sciences* by Niall O' Dochartaigh and *Doing Internet Research: Critical Issues and Methods of Examining the Net* edited by Steve Jones.

The necessity of such books on internet research is a testament to the extraordinary potential and power of the internet. Just as with books, the internet needs to be approached systematically, but much less like books, it has to be approached with caution. Although the internet carries a tremendous amount of information, it is imperative to understand certain limitations that it presents for the serious researcher. If one considers how easy it is to upload or post information in the form of articles or specialized sites, practically anyone can crown themselves a veritable authority on almost any subject. In particular, if the site is framed with elegant graphics and the information is presented in a corporate-like platform, then its validity rating increases considerably.

Any information extracted from the internet, unless the source is explicitly clear, must be regarded with care. For a website to be considered reliable, the author, creator or sponsor must be identified clearly. If the information originated from another site, then that site must also be deemed reliable. A helpful clue would be to examine the reliability of other resources linked to this site. Be sure to evaluate the site as critically as possible and always try to cross-check it against other sources.

Studying the web address or URL (universal resource locator) will help in forming assumptions regarding the reliability of the

site. As a general rule, if the site is affiliated or published by an educational and professional organization or association, it is safe to assume that the information it hosts is more reliable than any from a site posted on someone's personal website (Borden & Rueedi Ray 2006). The name of the organization normally appears immediately after the World Wide Web acronym, e.g. [www.iflaonline.org](http://www.iflaonline.org) (International Association of Landscape Architects). Information found on sites hosted by commercial web hosts such as aol.com or geocities.com should also raise an eyebrow. Since there is a considerable number of web hosts available worldwide, the student would be well served to try to break down the URL into recognizable words and look them up individually.

The date of the material is also crucial in determining the reliability of the information. Outdated information is as useless as information from questionable sources.

In summary when using sources from the internet, the following criteria must be considered:

- Authorship
- Affiliation
- Publisher
- Reliability of associated links
- Date published

## **Getting Started**

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### **Reading**

Although valuable sources should expand beyond printed literature, it is quite likely that for most research projects, books, articles and other scholarly publications will comprise the largest resource of where useful material is located. Reading large volumes of literature can be a daunting task, especially if the language of the literature is not the reader's native language. There are a number of techniques to improve one's reading ability, some requiring

months of coaching and training, others involving fewer hours of structured training and more self-discipline, concentration and better use of one's time.

## **Discipline and Concentration**

Discipline is an important element in efficient reading as well as in most aspects of personal, academic and professional life. Discipline cannot be taught in the same way as Latin or arithmetic. It is a virtue, much like patience that can be cultivated through time and strength of will. Unlike the knowledge of a foreign language or the presence of artistic talent which, if present, tends to be omnipotent in the beholder's personality, discipline is a rather elastic asset, since the beholder at times has a little but at other times possesses more. In the case of reading books, discipline involves crafting an unspoken agreement between the reader and the gods of time whereby the reader dedicates the assigned time to make the most of his or her reading. The committed reader should acknowledge it as a shame when designated reading time is spent daydreaming, stroking the cat or surfing the internet for embarrassing pictures of favourite celebrities.

Maintaining concentration after a few solid hours of reading can be a real challenge. Eyes sting, sitting bones hurt and the level of understanding decreases in a downward spiral manner. To minimize unpleasant side-effects to long hours of reading, it helps to follow some time-old colloquial techniques: always have adequate lighting and sit in an anatomic chair. Being comfortable, but not too comfortable, is perhaps the greatest challenge in setting up the reader's optimal surroundings. Reading in bed is probably at the top of the list of preferred places by many readers, but in practical terms, it is perhaps the least productive.

## **Learning to Read Faster and Better**

Let's face it: most design students are not programmed to spend long hours of reading. This is truly regretful since many design disciplines are complemented, enlightened and enriched by literature, philosophy and supporting theories. Since designers have an innate ability to put thoughts and ideas into pictorial images or in modelled objects, they tend to allow their reading

(and writing) muscle to atrophy. Intimidation is an important factor in keeping designers away from text books and in fact from any expository writing. A fashion designer or an interior designer may pick up a book that is not fiction and will regard it with negative disparaging thoughts such as “too dense, complicated, boring,” and perhaps other choice descriptions. Interestingly enough, once reading and writing obstacles are overcome, the results can be breathtaking; scholars originating from the realm of design have produced books that serve as timeless masterpieces. Architect Kenneth Frampton’s *Studies in Tectonic Culture*, or the groundbreaking book by graphic designer Stefan Sagmeister *Things I have Learned in my Life So Far*, are classic examples of designers-turned-authors of highly influential books.

The purpose of this segment on reading is to break down the mental barriers that design students face and to channel their innate creativity towards better reading and writing. The first barrier to be tackled is to avoid superficial, target-less, exploratory reading. To achieve efficiency in reading, the mind has to stay constantly active, reading each paragraph as if looking for a particular answer. In order to look for an answer, the reader must first *determine the question*. In conclusion, asking the right questions holds the key to efficient reading. Therefore the focus here is not to simply ‘read’ a book, but to formulate the best questions that will serve as a raft that will guide you through the gist of the text he or she is attempting to read.

### ***Front and Back Page Matter***

Most readers believe that to expedite time, they should immediately start with reading the main body of the book, hence, skipping all supplementary information found at the front and the back of the book. Since information such as Table of Contents, Foreword, Preface, Introduction and Prologue are located at the front of a book, they are collectively known as Front Page Matter, and the Epilogue, Conclusion, Bibliography and Index are called Back Page Matter, as they are located at the end of a book. Most readers tend to ignore matter such as the index or the preface, falsely thinking that they are of secondary importance. However,



since the target of any book is to answer questions and the primary aim should be to create the questions, the best place to start is actually the preface, if there is one, the table of contents and chapter sequence (Adler & van Doren 1972). If followed with discipline, the reader will find that this technique of first examining a book's supplementary aids actually saves time. This way, information is absorbed quickly and efficiently because the book is read only in lieu of important, intelligent questions.

So, instead of going straight to the main body of the book, read the preface, if there is one, and then the introduction, making sure you establish the scope of the book and attempt to decipher the author's particular angle. Also be sure to read and become familiar with the table of contents not only to acquire a better sense of the book's subject, but also because the table of contents, if written analytically, is to be regarded as the roadmap one uses before taking a trip (Adler and van Doren 1972).

The chapter sequence found in the table of contents provides useful information with respect to the way the author chooses to structure the argument. In fact, few readers realize how much thought is entailed in putting together the order of chapters. Read the list of chapters, slowly and carefully, creating an educated guess as to how each relates to the main theme of the book. After reviewing the chapters, the reader should examine the index which is present in practically all expository work and provides a comprehensive range of topics covered in the book. Looking up some of the terms, both known and unknown, may help determine the academic level of the book with respect to the reader. If the book defines known terms with unsophisticated language, then the book may not be appropriate; if the language used seems too advanced, then the reader may be better served looking for another title. Either way, the index is an extremely useful tool in the art of book reading, as it often represents a summary of sorts of all the topics covered inside.

Questions that are created by the aforementioned technique may range from general ones, such as "what is the book about?" and "how does the author proceed to present his point of view?" to more specific questions that refer to particular subjects or

chapters. Frequently, chapter titles are not straight forward like those encountered in the award winning book on graphic design *Envisioning Information* by Edward Tufte which features chapter titles such as “Escaping Flatland” and “Narratives of Space and Time.” Sometimes a chapter might be titled “Diversity by Design: Feminist Reflections on the Future of Architectural Education and Practice” from the book *The Sex of Architecture*. The reader might ask a series of questions when reading this chapter including:

- How is diversity in design expressed?
- Which feminist reflections are presented?
- What is the outlook on the future of architectural education, as it is included in the argument?
- How are matters of education distinguished from practice?
- What is the reader’s personal take? Does the reader agree, disagree, or is the reader indifferent to the argument and the style of writing?

Once the questions have been devised, the reader may either retain them in a mental list or put them down in black and white and keep them by his or her side while reading. The questions may even be written elegantly on a piece of cardboard which can be used as a bookmark.

### ***Subject Matter***

A good way to maximize reading efficiency is to take notes while reading. Keeping notes not only helps to isolate important points in the text, but it keeps the reader focused for longer periods. By this, the authors of this book are not promoting the systematic defacing of all things that are printed. We are, however, promoting that a notebook or sketchbook is kept, dedicated to taking notes on what has been read, evaluating its relevance, listing keywords, sketching responses to what has been read etc, and keeping in mind that it is best to have a notebook or sketchbook exclusively for the research project at hand. For the purpose of efficient note taking, the reader needs sufficient flat surface to accommodate the book being read as well as the accompanying notebook or

sketchbook. Although taking notes of what has been read may seem like a waste of valuable reading time, it is well-invested time when it comes to completing the written part of the assignment.

Before dismissing a book that seems to be of a higher level than your knowledge or ability, consider the following idea: the more you read, the better you become at reading. An important way to improve on reading speed is to simply plough through the material with as few interruptions as possible to re-read segments. In order to maximize the potential knowledge a book has to offer, it is rarely necessary for the reader to understand every single concept or word published. In fact, stopping every now and then for word definitions or to read the same passage more than once or twice, not only breaks the concentration but it also adds to what must already be a frustrating circumstance. Compounded frustration will only lead to slower reading speeds and an increased likelihood of simply giving up on the book entirely.

Keeping in mind the front and back subject matter whilst repeating the questions you have already prepared like a silent mantra, you should be in a position to read the subject matter as smoothly as possible. Seemingly difficult passages should be read with the same attitude as passages whose meaning is clearer. By the time you reach the end of the book, you are guaranteed to have gained more knowledge than originally expected given the apparent difficulty of the text. The most important benefit, however, is that you will come to know with considerable certainty, the exact location of the excerpt of the book requiring further study.

Often the reader operates under the misconception that the best way to locate information in a book is to purely look up the section relevant to his or her study in either the index or the table of contents, sprint directly to the given page and begin to read. This technique, however, is not likely to help you understand the information presented in the given section simply because the background setting will be missing.

Reading with as little back and forth movement as possible is an overall useful technique to improve speed in reading. When the human eye reads, it tends to jump back and forth to take in another glance at a previous word or group of words. This habit, which clearly wastes valuable reading time, is probably due to a feeling of uncertainty and a need to make sure that the word or phrase read is indeed the one originally registered. In fact, the eyes 'double-checking' performance proves to be unnecessary in most cases as the eye's original assessment of the read material is usually correct.

One way to improve reading speed is to try to minimize the eye's back and forth regression. To resolve this, we must turn our attention to another body member – the finger. The finger can prove to be a significant ally in the attempt to keep the eye steady and to save valuable reading time. This requires a certain degree of coordination which comes with practice. In time, the reader will be in a position to experiment with increasing speeds of the travelling finger, as long as the eye still follows efficiently. At first, the finger will point to one or two words at a time but as speeds increase, the finger will guide the eye to take in a group of words, while increasing the capacity of the eye's peripheral vision.

### ***Speed Reading***

One of the simplest techniques that encourage faster reading speeds involves enhancing peripheral vision so that the eye can grasp more than one word at a glance. To achieve better peripheral vision, practice by lifting up one finger at arm's length, close one eye and focus with the other eye on the fingernail. Without moving the eye, try to slowly divert focus from the fingernail to its surroundings. You will notice that the nail will slowly become out of focus and that the eye will be able to recognize more of the background. Try this with each eye. If practised consistently, this will encourage the eye to take in several words at a time.

In spite of how diligently you practise your peripheral vision exercises, the result in reading speeds, although probably much

improved, will always be limited by a single irrefutable factor: the hidden voice, or “subvocalization.” Some experts in cognitive science have long established the most prominent obstacle to reading as quickly as the eye can travel is a phenomenon called subvocalization. As the eyes land on a written word, the image of the word is first sent to the larynx and then to the brain for interpretation. Even if the word is not read out loud, the larynx and tongue actually vibrate the sound of the word. This process, known as subvocalization, takes up valuable reading time.

Bypassing the larynx eliminates subvocalization and results in sending the image of the text directly to the brain thus helping the reader achieve phenomenal reading speeds. An analogy used by Stanley D. Frank in one of his two books on speed reading and speed learning (1994) involves the way the brain recognizes images, as opposed to words. If you see your mother coming your way, your brain identifies her immediately – it does not need to subvocalize the words “this is my mother.”

Eliminating subvocal reading to achieve impressive reading speeds is a somewhat controversial technique among the science community. However, for those design students willing to take the challenge, some well-known techniques are worth mentioning within the scope of this book.

Kris Madden, an artist who has been researching accelerated reading for years, proposes a way to trick the larynx into excluding it from the reading equation. He suggests the following: while the eye is reading, let the “hidden voice” mechanically read something different. Say your eyes are reading the sentence:

‘The use of concepts of discontinuity, rupture, threshold, limit, series and transformation present all historical analysis not only with questions of procedure, but with theoretical problems.’

While reading the sentence as it appears on the page, say loudly the words ‘one, two, three, four, one, two, three, four, one, two, three, four’ etc. Each syllable of the actual sentence is replaced by one number. So in fact, since the hidden voice is reading something different to the loud voice, the eyes are reading one

thing and the larynx is mechanically reading something else. In the early stages of practising this technique, the sentences read will not be making much sense. Gradually though, the brain will be able to understand what the eye sees, without that information travelling first via the larynx. For further reading, you may refer to Madden's book *Learn to Speed Read* (2009).

Another way to achieve bypassing the larynx is to practise "vertical reading." The method promoted by Stanley Frank in his book *The Evelyn Wood Seven Day Speed Reading and Learning Program*, proposes coaching the brain to develop an understanding of the words as images rather than words which appear in the order the larynx is used to reading. To accomplish this, you take a page of writing and first draw a vertical line down the middle of the text. Then, divide the page into five horizontal parts by drawing lines at equal intervals. The result will be ten equal boxes of text. Cover all the boxes except the one at the top left corner. Take a few seconds to look at it, resisting the urge to read the words from left to right, line by line. Then, cover all the boxes except the one at the top right side and spend a few seconds looking at that. Work your way down the page without being too concerned about deducing the essence of the page (1994). With practise, meanings will become clearer and you should be able to "scan" the page from top to bottom and be able to discern the meaning of the text.

## **Organization**

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### **Preliminary Bibliography**

Once the process of conducting research has commenced and books, journals and other material have been stacked up on any horizontal space available, it is time to consider compiling a Preliminary Bibliography to document all relevant material that has either been located on the aforementioned horizontal surface or is still at large. Preliminary Bibliography, also known as Working Bibliography, is the initial list of references regarding the proposed topic of study. It forms a particularly useful tool which offers assurance to the student who may not feel confident that there are adequate sources to successfully complete his or her research.

If the research assignment involves the submittal of a Proposal (see Chapter 2) then the Preliminary Bibliography, should for the most part, be already prepared and presented as part of the Proposal document. If no Proposal was required then the Preliminary Bibliography is essential. For it to have a more versatile purpose, the student should write all sources alphabetically and in the same format as the one chosen for the Works Cited section of the written assignment. Although this seems like extra work, it will prove to be an extraordinary time-saver when the time comes to put together the final written assignment. For example, taking quick, scribbled notes of a couple of names of books might look like this:

The Image of the City, Kevin Lynch.  
Moughtin, Urban Design, Street and Square

The correct way to enter these books on the Preliminary Bibliography so that they are ready to be transferred as references in the final assignment is:

Lynch, Kevin, 1994, *The Image of the City*, Cambridge: The MIT Press  
Moughtin, Cliff, 2005, *Urban Design: Street and Square*,  
Amsterdam: Architectural Press

If notes are taken by hand, then writing the title of the book in italics is simply not realistic. Underlining the book's title works just as well.

### **Tips**

Although you might consider yourself a fairly organized person, you will find in the course of your academic tenure that there will always be some room for improvement. Many students, and in fact many professionals, find that their trusted methods of filing and archiving information evolves and in some cases completely changes from project to project. Adapting one's organizational habits according to the project at hand is a healthy approach to maximizing one's efforts.

The section of this chapter offers some practical advice and tips on how to develop an efficient scheme to organize your research.

If, however, you have an organizing method that you feel suits you best, then this sub-chapter may not be of great interest to you.

### **Post-it-page-summary**

Inevitably some of the text you will come across during the course of the research will stand out as more valuable than others. One way to retain that information in an accessible way is to take a piece of self adhesive paper of compact dimensions (e.g. 75x75cm or 76x102cm) and write down the key points each page has to provide and then stick the paper to the centre of the corresponding page. This method is preferable to the proverbial “writing on the side of the page” system because it is clearly more respectful towards printed matter. When the time comes to re-open the article or book chapter, you will only have to look at the post-it note to regain the gist of the page.

Since paper adhesives are not known for their endurance and to avoid a snowfall of colourful post-it notes should the book or journal be used for anything other than reading by the occasional careless roommate, it might be best to include on a small corner of the note the page number and chapter or any other coded information that will help you identify it if found on the floor or stuck under a shoe.

### **Colour-coding: Brain and Colour Associations**

Break down the research into topics. These may be thematic or they may be related to process and approach. Breaking down the topics into themes may be in direct correlation to the chapters of the assignment or thesis. For example, if the topic at hand is the “Principles of Domestic Product Design,” then it is reasonable to assume that there will be chapters dedicated to the development of domestic habits, idea development, aesthetics, technology, manufacturing and testing. Careful chaptering of any research assignment is paramount to a successful final product. It helps the reader as well as the writer to stay focused and orientated.

While deeply immersed in research, you will inevitably succumb to folding book pages, ripping out magazine leaves and using the first available receipt or cinema stub to mark a section in a periodical.



While quickly marking all relevant data is important, it is equally beneficial to do it in such a way to facilitate retrieval. Consider grouping data by colour-coding it. Use the same colour to mark information that relates to the same chapter or topic.

If your research involves printing or photocopying large volumes of paper, you may apply the colour-coding technique by using different colours of printer paper. For instance, in the “Principles of Domestic Product Design,” you may print data relating to domestic habits on beige paper, idea development on green, aesthetics on blue and so forth. Be sure to use recycled paper where possible. Also remember to keep an index handy of what each colour represents.

## **Proper Citation Information**

Recording the origins of any article or information must become as habitual as second-nature and as valuable as a reflex action to any perspective researcher.

When collecting clippings, photographs or hardcopies, it is imperative to quote the source. Before ripping out or photocopying a picture or an article from a magazine, take the time to write on the back all relevant information, such as date written, published or created, author, artist or creator and all necessary information the reader would require if he or she were to embark on a mission to retrieve it. This practice will not only keep you away from plagiarism issues, but it will prove to be time well spent when the time comes to compose the final assignment.

More details on correct reference format are found in the following chapter.

## **The Sketchbook Culture**

Most design schools place particular importance on keeping a journal as part of the design process. This journal is most commonly known as a sketchbook simply because sketches form a sizeable part of the design community’s vocabulary. A sketchbook is essentially a book with blank sheets held together in any which way. The essence, however, of the sketchbook is the unadulterated recording of thoughts, ideas, reminders and moments. It is the

place where the process and development of a design can be developed and narrated. In the case of a research-based project or written assignment, the sketchbook can be particularly valuable, if records are documented in a systematic, legible manner.

From an academic point of view, being able to present a sketchbook to your instructors and your peers can be invaluable. It is a testament of the process and experimentation you underwent in order to produce the finished article. A process that is broken down to stages is easier to improve on and to receive constructive feedback on than an end product.

In spite of what the name implies, the sketchbook is not simply a collection of sketches. In fact the richest sketchbook is one that is filled with different textures, colours and material. It is a *tabula rasa* of experimentation and exploration while offering the unique advantage of chronology. It is a place where the designer can position sketches, photocopies, photographs, magazine clippings, or scans. It allows the designer to write notes, thoughts and reflections. From a practical perspective, the sketchbook allows the owner to review the progress of a design idea and to document any fleeting momentary inspiration.

# Composing the Final Output

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Writing the assignment paper is an exhilarating experience as it marks the awareness of all the skills gained from research. It is the perfect vehicle to communicate the breadth and depth of newly acquired knowledge. Since verbal composition seems like an insurmountable task for most design students, the authors of this book have compiled this final chapter to provide the basic know-how that every design student should have in order to complete with optimism and success the written part of a research and writing assignment.

It is important to be aware that research is inherently a process that rarely has a distinct moment of completion. Even if conclusions are drawn to a satisfactory point and a significant body of work seems likely to be projected, there will always be room for further development of research and ideas. However, during the design student's academic tenure, assignment deadlines will undoubtedly make the experience seem a proverbial race against time for most. For this reason, you must try to keep the assignment's progress within the preset timeline (see page 51), allowing yourself enough time to write the first draft before handing it in for comments and then composing the final product.

Jeffrey Eugenides, a Pulitzer prize-winning novelist, once remarked that the more he wrote the better at writing he became. This, he claimed, was evidenced by the fact that he would constantly return to earlier segments of his books and feel compelled to rewrite them. The best advice offered to the young designer who is uncomfortable at writing, is simply to keep writing. The more you write the better at it you will surely become.

The next piece of advice, ranking a close second to the first, is

to keep reading. Reading everything within arm's reach will inevitably enhance your "word memory bank." Your subconscious will become accustomed to the sight of words and your brain will slowly develop an attitude towards grammar. Keep a book on your bedside table and aim to read a page or two before falling asleep, read while visiting the bathroom (hygiene rules strictly applied), leaf through a magazine and allow your eyes to rest on words while talking on the phone, or read while eating breakfast. Although you will undoubtedly benefit in more obvious ways if your reading material is rather more challenging than that which is printed on the side of the cereal box, you will definitely profit in some way from just about any text you read.

## **Final Essay Structure**

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Most assignments are issued by course instructors or by institutions and are accompanied with a set of guidelines regarding the structure of the written essay. The format generally accepted in global academia is separated into three fields:

### **Opening Sequence**

- Title Page
- Abstract
- Acknowledgements
- Table of Contents
- List of Illustrations

### **Main Body of Text**

- Introduction
- Main Text
- Conclusion

### **List of References**

The next three subsections, Opening Sequence, Main Body of Text and List of References provide a detailed explanation of all fields that comprise a research and writing assignment in the order in which they appear in the final paper. This order does not necessarily reflect the sequence in which they are composed by the author.

## Opening Sequence

### The Title Page

The front cover, known as the Title Page should always include the following:

1. Title of the essay assignment
2. Name of the author
3. Date of submittal
4. Course name or degree towards the assignment is submitted
5. Name of institution and department
6. Name of the course instructor, in the case of thesis submittals the names of primary and secondary advisors should also be included

Frequently, the *abstract* is also included in the Title Page.

### Abstract

The purpose and importance of the assignment is expressed as concisely as possible in a brief, self-contained paragraph called the Abstract. The purpose of the Abstract is to summarize the research intentions. It should be specific and accurate enough to help the reader ascertain the meaning and premise of the assignment.

Unless stated otherwise, a typical Abstract should contain not less than five sentences, no more than fifteen, and should aim to be completed in about 120 words. The statement of intent or thesis statement (see page 47, chapter 2) which was written as part of the proposal also needs to be included in the Abstract.

In some ways, the Abstract is the most important part of the essay. When applying to be a participant in a conference or a symposium relevant to your field of study or area of interest, the organizing body customarily requests a copy of the Abstract of the paper you plan to present to be included with the application. From the clarity

and relevance of the Abstract, it is usually determined whether the paper the Abstract represents will be an asset to the conference.

The Abstract should convey the following:

- the focus of the study, the subject of the research assignment or the premise on which the study is based
- the statement of intent or thesis statement
- the position the author is supporting
- if relevant, results and solutions the author is proposing
- the methods and techniques used to progress the study
- brief conclusion

An example of an Abstract for a research essay on sacred groves in ancient Green landscapes (the statement of intent is written in italics):

Sacred groves were areas designed and delineated by the Greeks of Antiquity for the specific purpose of linking the sacred realm of the gods to the mortal world of humans. Since the realm of the gods was considered by the humans as chaotic and wild, the sacred groves were also part of untrammelled nature where fierce activities such as animal sacrifices took place. The sacred grove is therefore a threshold space, a portal to the domain of disorder. As such, it presents characteristics of nonlinear systems that require disturbance in order to remain evolving and transformative. *This essay advances a unique reading of sacred groves into human systems by means of the gift of sacrifice.* The theme of the study is supported through content analysis of period texts as well as philosophical and psychological interpretations of primary material (Barnett 2007).

An example of an Abstract for a thesis project (the thesis statement is written in italics):

*This thesis project aims to facilitate and restore connections between residential communities and adjacent industrial zones.* Rifts, both social and environmental, can be the result of perceived

identities and topographical restrictions. It is a philosophical foundation that designed environments must serve to connect people to each other and to their immediate environment. The method of achieving this connection is through an urban design proposal culminating in the formulation of an ecologically sustainable process, where the participants are the community, local industry and abundant nature.

## **Acknowledgements**

An Acknowledgments' page is a requirement of any thesis or dissertation project, but is hardly necessary for all other course assignments. The page should consist of a paragraph or two where you express gratitude to anyone who has been instrumental in the completion of your project. This typically includes advisors, professors, family and friends.

## **Table of Contents**

While putting together the Proposal for the assignment, a preliminary chapter or topic breakdown should have been composed. At the end of the writing process, a finalized version of the Table of Contents should come together, including page numbers for all items in the essay.

The front page or front cover does not receive a page number. In fact, the first page to be numbered is the Acknowledgments' page and it is allocated a roman numeral (i, ii, etc). The Table of Contents' pages and the List of illustrations that follow also receive roman numerals.

The first page which receives an Arabic numeral (1, 2, etc) is the Introduction page. The remaining pages, including the appendix pages and the pages where references are listed, are numbered with Arabic numerals in ascending order. Do not forget that in addition to pages for chapter headings, you must also provide page numbers for all further chapter subdivisions (see Appendix I).

## List of Illustrations: Images, Tables, Graphs and Figures

An *illustration* is an efficient means of visualizing information graphically and enriching an essay's overall content. It is a collective term for images, tables, graphs and figures. Although the list of illustrations may sometimes appear at the end of the essay, it is more common for it to be located immediately following the Table of Contents. It is recommended to separate images, tables, graphics and figures into distinct categories, although grouping them all under the category of illustrations also has its merits, particularly if the total number of illustrations in an essay does not exceed ten.

An *image* refers to a picture, a photograph, sketch or a drawing and it usually does not contain words, letters or numbers whereas a table is intended to convey data with the use of numbers, words and other elements. The information in a table typically appears in rows and columns. A *graph*, on the other hand, is a more abstract representation of data which uses clear and meaningful graphics in the form of stylized objects and shapes.

The term *figure* is by far the most flexible one and can be used to refer to just about any graphical representation. Much like the term *illustration*, the word *figure* can be an all-inclusive term used to describe images, tables and graphs. The fine difference that distinguishes illustrations from figures lies in the sense that illustrations allude towards pictorial imagery whereas the category of figures implies a group comprised mostly of tables and graphs.

The following guidelines refer to the List of Illustrations, but they are just as applicable to all other illustration categories, should you decide to separate them into groups of images, tables, graphs, or figures:

- The style of numbering used for the List of Illustrations depends on the author's personal preference. Once a numbering scheme has been established, it must be regarded with consistency. If the essay is comprised of more than one chapter, then it is wise to invent a scheme where the illustration



number corresponds not only to an ascending number of the illustration, but to the number of the chapter. For instance, illustration 2.5 denotes the fifth illustration appearing in chapter 2.

- The source of the illustration must always be clearly cited. Although, it is recommended to provide the source data under the corresponding illustration, it is also acceptable for the source to be cited in the List of Illustrations.
- The List should include the number of the illustration, the title and the page the illustration is on.

Typically, items in a List of Illustrations should look like this:

1.	Sketch of proposed product	17
2.	Sketch of joint detail	22
3.	Detailed drawing of product	35
4.	Three Dimensional rendering of product	55

The number on the left tells of the order in which the illustration appears in the text, the middle column is the title and the right column provides the page number the illustration is on.

## **Main Body of Text**

### **Introduction**

The essay's Introduction is where all background information is presented to the reader in order to facilitate his or her understanding of the essay. It is important for the reader to understand the previous work on which you are trying to build. To complete the background setting for the study, all important terms and concepts should be defined according to their relevance to the research study as well as pertinent facts, figures and statistics. Also, be sure to include in the Introduction, the reasons why the study was undertaken and what the goal of this endeavour is. As difficult as it feels, try to avoid repeating phrases already used in the Abstract.

The scope of the study should be presented with clarity and

precision. The reader needs to fully understand the breadth of your study in order to appreciate the depth of your findings and to eliminate unwarranted expectations. In other words, the Introduction serves to make perfectly clear where the study starts and where it ends. In doing so, it is also important to distinguish whether any data presented in the Introduction refers to facts already established by other academic research, whereas the author's own contribution appears in the next section of the essay.

## **Main Body**

The Main Body is proportionally the biggest element in the essay and as such, it deserves your optimum endeavour. Since it truly represents the culmination of all your efforts, approaching it may seem a little daunting. One way to advance the strenuous process of drafting the Main Body is to separate it into sections (or chapters) and subsections. Composing it in smaller segments rather than in one long piece makes the task seem more manageable.

When writing the main body of text it is important to create a rhythm and momentum. Try not to stop mid-sentence to check references, but instead, put a tag and look it up later. Also, try to write a little each day, as this will help you to stay immersed in the study. Practising frequent writing will ensure less time required to reacquaint yourself with your work every time you sit down to continue. Additionally, make sure that you stop your daily writing input at a point where you believe the resumption of your task will be made easier and smoother without loss of impetus.

Be sure that the main body of your text is successful in the following issues (Bell 2009):

1. Are all terms and concepts defined straightforwardly?
2. Chapters and subchapters cover all topics as efficiently as possible?  
Is the meaning of each chapter clear?
3. Objectives should be set out as clearly as possible.  
Have these objectives been met during the course of the research? A brief presentation of the

results, conclusions and, where necessary, recommendations, within the context of the research study should appear in the Main Body and should be further explained in the context of the Conclusion.

4. Have there been sufficient resources used to support the study?

Are all methods and techniques used towards addressing the statement of intent or thesis statement accurately described? Has there been enough relevant literature used to complete the essay?

5. Is there any bias apparent or unsubstantiated evidence present?

If prejudiced or controversial statements cannot be adequately supported then it is best that they are omitted.

6. Have there been any limitations to the study and have these limitations been clearly stated?

7. Are the results supported by the evidence presented in the main body of text?

8. Proper grammar and skilful citation is crucial.

## **Conclusion**

Although most other elements of the essay, such as the Abstract or the Introduction, may be written in just about any sequence to each other, the Conclusion must religiously follow the composition of the Main Body. One way to ensure the quality and effectiveness of the Conclusion is to go through the main body of text and make a list of all important points discussed and results presented. This should help keep the section of the Conclusion focused and specific. The Conclusion must be comprehensive enough that if read in combination with the Abstract, it can provide a complete picture of the research study.

Since the main results and conclusions of the study have already been presented in connection with the research process in the Main Body of the essay, the Conclusion is the section where they will finally be presented in a strong, punchy format. Be bold and

specific but beware of the gnawing temptation to garnish your results with your personal opinion. If your opinion has not been supported by your research and is not reasonably extracted from the way you have structured your essay, then it must not be included in the Conclusion.

## **List of References**

The List of References is a compilation of all sources, listed alphabetically, which have been cited in the essay and while Works Cited means precisely the same thing, the former tends to be used more in the author/date style of citation (see below) and the latter in another popular citation style, the Modern Language Association (MLA). A further widely used synonym of the List of References and Works Cited is a clever fusion known as *References Cited*.

### ***Is it List of References, Works Cited or Bibliography?***

The usage of the word bibliography is a matter often misunderstood. A bibliography consists of a list of sources used by the author to acquire the necessary background information to enable him or her to generate the assignment. Certainly books that are in the Works Cited section will also appear in the Bibliography, but the reverse is not true. For this reason, naming the list of sources cited in the text as a Bibliography is considered incorrect by many academic circles.

While a List of References, or Works Cited section are imperative for a successful research essay, the inclusion of a Bibliography, as defined above, unless specified by the assignment requirements, is voluntary.

## **In-text Citations**

When using information (form of paraphrasing or summarizing) found in other literature or resources, it is crucial to cite, or reference it, so that the information may not be mistaken as your own. Although sometimes difficult to distinguish, citation is not necessary for information that can be considered common

knowledge.

Providing citations is a seemingly straightforward task but it frequently appears to be the nemesis of many students writing a research assignment. Plagiarism aside, the fact of the matter is that citing your work is an all-important, straight-forward, systematic procedure whose successful execution can make a significant difference in the final grade of your work.

The most likely cause for the confusion surrounding citations is the variety of citation systems currently popular in academia. Adding to the confusion, styles have a variety of similar sounding names, the variation often depending on geography. To make matters simple, the authors of this guidebook will focus on two, regularly adopted styles, which are popular in the broader area of design. These styles are commonly known as the **author/date** style and **footnote/endnote** style. These two styles refer to in-text citations and in both cases the method by which these citations are presented in the List of References is practically identical.

A note for the diligent student: some students use the terms citing and referencing interchangeably; in fact, referencing is a somewhat illegitimate adaptation of a noun into a verb. Although the term referencing has become accepted over the years, it is best to use the verb citing when referring to in-text source identification.

The assignment brief often prescribes which style is expected to be used in the essay. During your academic tenure, you will undoubtedly be presented with various styles known by acronyms and names of prestigious institutions and you will be expected to comply with their individual requirements. When an assignment comes along stipulating a particular style that is unfamiliar to you, you should refer to any language encyclopaedia or a reputable internet site and familiarize yourself with details of the specific style.

At other times, it is left to the author to decide which scheme to adopt. The key here is consistency: choosing one style over another can be an entirely subjective matter, but the choice must be followed through with no exceptions. The mixing and matching of citation methods is not acceptable in any high-level research essay.

Before proceeding to the meat of the matter, another piece of writing advice must be extended: make sure you cite as you write. This is an extremely valuable writing habit. Postponing citations for later is a devastating trap many students fall into. You must never neglect to add the proper citation while writing the text, or else you will undoubtedly find yourself spinning wheels trying to complete the impossible task and leafing through books and periodicals trying to track down corresponding sources.

The following instructions are summarized in Appendix 1.

### ***Author/Date***

The author/date style is a practical, straight-forward method of identifying your sources while writing the research essay. The author's surname alongside the year the source was released, are placed inside a set of brackets immediately following the data or concept inspired by the work. The brackets indicating the author and the date may appear in the middle or at the end of a sentence. They generally do not appear following headings or subheadings.

Here are citation guidelines for the following occasions:

#### **1. Single author**

When using information attributed to a particular source, the correct way to identify the source is to write the surname of the author followed by the date the book or article was published. This format includes citations of any print and electronic matter, including periodicals, newspaper articles, conference papers, theses, dissertations as well as printed and electronic correspondence.

### Example

Since all interesting worlds, such as the physical, the biological, the imaginary and the human, operate in three dimensions, escaping flatland is a crucial element in successfully envisioning information (Tufte 1992).

You may choose to add a comma between the author's name and the date. If you choose to do so, then once again, you must remain consistent.

If the name of the author is already used in the text, then the only information required in the brackets is the date.

### Example

Regarding techniques for envisioning information, Tufte (1992) suggests...

A page number or a range of a few pages maybe added next to the date, for instance, (Tufte 1992, p. 29) or (Tufte 1992, pp. 29-33) if the information cited can be located on one or two particular pages. If the information is a direct quote, then including the page number is compulsory.

## 2. Two or more authors

When the source has two or more authors, then their names appear as follows (Papadopoulou & Lapithis 2011). If the source has more than two authors, then the citation appears as (Papadopoulou et al. 2011).

## 3. Multiple works by the same author

If you are using work from several publications by the same author, then the citation appears as follows:

### Example

Bioclimatic architecture and passive solar design innovations present an extraordinary opportunity for up to 70% energy savings in the Mediterranean region (Lapithis 2002, 2006).

#### 4. Multiple works by one author published in the same year

Should the same author have published two or more items in the same year, then they are distinguished with lower case letters from the alphabet, a, b, c, etc.

### Example

Bioclimatic architecture and passive solar design innovations present an extraordinary opportunity for up to 70% energy savings in the Mediterranean region (Lapithis 2002a & 2002b).

#### 5. Citing a direct quote

If using a direct quote, whether in inverted commas or placed in a separate paragraph (see subsection below), the citation must appear with the number of the page it is found on.

### Example

Escaping this flatland is the essential task of envisioning information – for all the interested worlds (physical, biological, imaginary, human) that we seek to understand are inevitably and happily multivariate in nature (Tufte 1992, p. 12)

The page number may be preceded by the letter p. If the quote spans over two pages, then the page numbers should be preceded by pp.



6. Work cited by another author

When citing work that has been cited by another author, the correct way to write it is the following:

Example

In the 1992 work by Tufte (cited in Lapithis & Papadopoulou 2011), it was stated that...

The above example implies that in their guidebook published in 2011, Lapithis and Papadopoulou presented information originating in a book by Tufte, published in 1992.

7. Work that has been edited

Books that have been compiled and edited should be cited using the name of the editor along with the date published, for instance (ed. Lapithis 2002).

If more than one editor is involved in the production of the material, the citation should appear as follows: (eds Lapithis & Papadopoulou 2002).

8. Publication by organization

If the publication has no obvious author and is the product of an organization or a company (as is often the case with reports), then you must use the name of the organization, followed by the date; for instance, (American Institute of Architects 2008).

9. No author

In the extraordinary circumstance where no author can be identified, then you may use (anon) instead of a citation. Beware! Excessive use of (anon) in your essay results in serious credibility issues.

10. Work from multi-media sources

When using information extracted from a film, television programme, or any other multi-media source (including

videos, video-streaming web services such as You Tube etc.), then the citation brackets should include the title of the film, episode or video clip in the place of the author, followed by the year of issue, if available.

**11. Information cited from the internet**

Information retrieved from the internet requires particular attention. Be sure to track down the name of the author, or the organization responsible for the article from where the information is derived and try to find the date it was published on the web. If such a date is not available, then you may write the year the article was accessed by you.

**12. Information cited from interviews**

When citing an interview, insert brackets containing the surname of the interviewee without date.

**Example**

Antonioni's film *L'avventura* demonstrates that the director has an acute sense of spatial understanding (McCormack).

*Also*

In an interview with Kenneth McCormack regarding Antonioni's work...

Just to give you a taste of how tangled the citation style universe can be, the author/date style is frequently known as the Harvard style and it also carries many similarities with another popular formatting guide, the American Psychological Association (APA) style, which is not to be confused with yet another famous style, the Modern Language Association (MLA) formatting guide.

***Footnote/Endnote***

This method is also known in some circles as the Traditional Method, as it seems to predate most other methods of citation. Its

characteristic feature is a series of small-sized numbers beginning from number 1 and continuing in ascending order, superscripted at the point in the text where the cited information is located. These numbers are then explained in a list of notes located at the end of the page where the corresponding numbers appear. In this case, the citations are known as footnotes, since the notes are located at the “foot” of the page. On other occasions, the list is presented at the end of the essay, thus the citations are known as endnotes.

As with the author/date style, the numbers may appear in the middle of a sentence as well as at the end, depending on where in the sentence the cited information is located. If there is a comma or a full stop at the location where the citation number must be placed, then the number always follows the punctuation mark. For example, “... simple lines of furniture,<sup>1</sup>” or “...near the focal point.<sup>2</sup>”

The footnote/endnote is not only used to identify the source of information, it is also useful in providing supplementary notes, thoughts, springboard ideas, unanswered questions etc.

The significant advantage that comes with using footnotes and endnotes instead of other citation styles is that any additional information the author of the essay wants to include to enrich its content is presented without interrupting the flow of the text.

When the footnotes appear at the bottom of the page, it is customary that a discrete line separates them from the main body of text. It is also customary that the font size of the footnotes is smaller than the size of the main text. This, however, does not necessarily apply when the notes appear at the end of the text as endnotes.

### Example

In order to provide thermal comfort, traditional architecture in Iran developed a style of inwardly oriented housing known as

“four seasons”<sup>1</sup> houses. These houses were laid out in a compact urban network so as to protect against sand storms and winter heat loss.

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<sup>1</sup> Hyde, R., 2008, *Bioclimatic Housing, Innovative Designs for Warm Climates*, Earthscan, London

“Four Seasons” housing is so called because the north side of the house received direct sunlight and was used by the family in the winter whereas the south side, which was always shaded, was used in the summer.

If you have more than one occasion where the same work is referenced, as is often the case, the work should only be cited in full on the first occasion the citation appears. For subsequent use of the same referenced work, the citation should be provided in an abbreviated form. Using the same number for all citations referenced to the same work is not correct.

### Example

<sup>1</sup> Hyde, R., 2008, *Bioclimatic Housing, Innovative Designs for Warm Climates*, Earthscan, London

<sup>2</sup> Hyde, *Bioclimatic Housing, Innovative Designs for Warm Climates*

### How to Make a List of References

There are a number of ways to present the references of works that have been cited in your text. The main idea, however, is to provide all relevant information in a consistent and systemic format. Some literary circles place the publication year, after the name of the author of the publication, others put it at the end; some keep the year in brackets, others do not; some researchers and authors write the publishing firm by first identifying the city where the firm is located, others place it at the end.

Here are just a few of the different types of work citations. In the examples that follow, Truth and Method is the title of the book,

Hans-Georg Gadamer is the name of the author, 2002 is the year the book was published, Continuum is the name of the publishing firm and New York is the first city listed as a location of the publishing firm. Notice that the only difference between some of these formats is the use of the comma instead of the full stop.

Gadamer, H. G., 2002, *Truth and Method*, Continuum, New York

Gadamer, H. G. 2002. *Truth and Method*. New York: Continuum

Gadamer, H. G., Truth and Method, New York: Continuum (2002)

Gadamer, H. G. (2002) *Truth and Method*, Continuum, New York

Gadamer, H. G. (2002) *Truth and Method*. New York: Continuum

Gadamer, Hans-Georg. *Truth and Method*. New York: Continuum, 2002

At the risk of appearing irritatingly repetitive, it must be stressed yet again that whichever type of reference writing style you choose, you must remain consistent throughout the assignment.

### List of References Made Easy

Collecting all the necessary information in order to construct an accurate List of References may sometimes require perseverance and a bit of detective work. The key elements are the surname of the creator, the year of publication, the publishing firm (or publishing house) and the city where the publishing firm is located. If there is more than one city listed, then choose the city named first. This information provides all vital clues, should the reader decide to go out in search of a work cited in his or her essay.

- **Books** are listed by the surname of the author, the author's initials, the date of the edition at hand, the title italicized, the name of the publishing firm and the first city listed by the publishing firm.

Tufte, E.R., 1992, *Envisioning Information*, Graphics Press, Cheshire

If the book has more than one author, then the listing is written as follows:

Ochoa, G. & Corey, M., 1995, *The Timeline Book of Science*, Ballantine Books, New York

If a book has been edited by a single individual:

Hughes, F. (ed.), 1996, *The Architect Reconstructing her Practice*, MIT Press, Cambridge

If a book has been edited by two or more authors:

Thompson, G.F. & Steiner, F.R. (eds), 1997, *Ecological Design and Planning*, John Wiley & Sons, Inc., New York

If the same author has written two books in the same year, the listing appears as follows:

Dawkins, R., 1996a, *Climbing Mount Improbable*, Viking, London

Dawkins, R., 1996b, *River of Eden*, Phoenix, London

- **Listings of periodical and newspaper articles** are presented first by the author's surname, then the author's initials, the year it was published, the article title in inverted commas, the periodical or newspaper name in italics, the periodical volume and number or newspaper issue and the page (*p*) or pages (*pp*) in which the article is found.

Dumaine, B., 2010, "Brainstorm Green: One Cool Skyscraper," *Fortune*, vol. 161, no. 3, p. 19

- **Theses and dissertations** should be treated like book references with one important distinction: since the thesis or dissertation is not published material, the title should not be in italics. It is wise to include a phrase indicating the degree towards which the thesis or dissertation was submitted. In the place of the publishing firm, the name of the institution should be written,

as well as the city the institution is located in.

Papadopoulou, A., 2000, "Industry and Community: Restoring the Link," Master's Thesis, Rhode Island School of Design, Providence

- References for papers published in **Conference Proceedings** are carried out by listing the name of the author of the paper used as a resource, the title of the paper in inverted commas, the title of the conference in italics followed by a double colon and the words "conference proceedings," the organizing body and finally the city where the conference was held.

Frasier, C., 2000, "Looking towards cognitive science as a means of establishing better design for living," *Design Today, Design for Living*: Conference Proceedings, New England Institute for Applied Arts, Boston

- In the case where **the publisher is an organization** or a company, the name of the author is substituted with the name of the publication in inverted commas, followed by the name of the document, the date of publication, and finally the name of the organization responsible for the publication, and volume or number, if applicable.

"Monthly Report on the Joint Studio of Animation and Film Students," Experimental Studios, 2001, Henderson School of Design, vol. 3

- In the case of **multi-media sources**, all available information regarding its sources must be provided in an orderly fashion. It is important to include the name (italicized) of the film or video clip, the date of production, the channel or station viewed, production company, the director, date of viewing or access and URL address (if viewed on the internet). List as much of the above as you have available as well as anything else that would help in retrieving the source.

"The Shining City," *Heaven, Hell and Suburbia*, 1994, Fulmar Television and Film, Bee, B., episode 1

If it is not possible to provide information such as the name of the production company, the production year or director, then the channel or source where the film or video clip was presented and date viewed will suffice.

*Heaven, Hell and Suburbia*, BBC2, aired on 17 April 2005

- The citation for information retrieved from the internet must contain as much data regarding its origins as possible. If available, the name of the author must be included, the date the article was written, the title in inverted commas, the date the article was accessed and the URL address.

Hargrove, G., 2010, "The Rural Design Vernacular: Objects that Expose Agency," Core77, accessed on 22 July 2010, <[http://www.core77.com/blog/featured\\_items/the\\_rural\\_design\\_vernacular\\_objects\\_that\\_expose\\_agency\\_by\\_gabriel\\_hargrove\\_16880.asp](http://www.core77.com/blog/featured_items/the_rural_design_vernacular_objects_that_expose_agency_by_gabriel_hargrove_16880.asp)>

- Citing an **Interview** holds perhaps less hard and fast rules than the previous categories. However, important information, such as the name of the interviewee, the date and location the interview took place, as well as any other relevant information regarding the interviewee's expertise, must be included in a reasonable order.

Interview with Mr. Craig Frasier, founder of New England Institute of Applied Arts, "The influence of cultural and cognitive development to modern-day design," 17th September 2010, Mr. Frasier's office, Medford, MA

### **A Note on Plagiarism**

The act of plagiarism is defined as using distinctive phrases, sentences, paragraphs or excerpts without acknowledging their origin. The same applies for less obvious items like concepts and ideas. Let's make one thing clear: even if you rephrase someone else's idea, it does not stop it from being someone else's idea and



it has to be referenced accordingly.

It is understandably tempting, particularly for design students whose writing skills are not up to par, to use the phraseology of someone whose language skills they consider superior. To use the words of another must seem both time-saving and effort-free as opposed to finding alternative ways to express and reference a notion, and it certainly saves the embarrassment of having the teacher flower pages with red correction marks. Hard as it seems, however, you must apply yourself diligently to express clearly and in your own words all information or ideas taken from other work, followed by the correct citation. If you choose to put the information in quotes, it only saves you the trouble of rephrasing it, but it does not exempt you from having to cite it.

Since plagiarism is a global issue in academia, many institutions today use specialized software to detect it. Such software includes EVE2, Glatt Plagiorism Screening, iThenticate, Turnitin and WCopy (Borden & Rueedi Ray 2006).

## Writing Tips

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### Guidelines on Language

Although this guidebook does not aim to replace grammar and language books, below are suggestions to mitigate certain common tendencies among students for inaccurate use of language.

### When to Use Italics

When a phrase, word, letter, or term to be explained later, is cited in the text as an example to be further elaborated on, then the item to be used as an example should be italicized.

Frequently when the letter *a* is placed in front of a noun or adjective, as in the case of the adjective *atypical*, it denotes the word's opposite meaning.

Italics are also often used to accent or to stress an item in a sentence.

The operating *moral* premise of information design should be that our readers are alert and caring.

When a foreign word is used in the text, it is also written in italics.

The name of the Bauhaus School is derived from the German words *Bau* and *Haus*, which mean building and house respectively.

## Italics Vs Inverted Commas

There are two common cases when the use of either italics or inverted commas is blurred. Beware! Some of these distinctions are stylistic and can vary from author to author. Consistency is the key: once you have settled on a standard, make sure you maintain it throughout the essay.

- Titles of books, periodicals and films are more elegantly expressed in italics. Conversely, the titles of chapters of books, articles or titles of projects are best written in inverted commas. In other words, hierarchy is what determines whether italics or inverted commas will be used; where italics rank higher than the inverted commas.
- Various words or phrases that need to be distinguished from the sentence or a text have to be evaluated based on their meaning and the author's intention. A safe approach is to assess whether the author is using a word or phrase that has another meaning other than the one he or she intends? If so, then the use of inverted commas is called for.

With practise, meanings will become clearer and you should be able to "scan" the page from top to bottom and be able to discern the meaning of the text.

When the author is quoting a word or phrase taken directly from another source, then the inverted comma must be used.

Bryan Lawson in his book *How Designers Think* (2006) supports the argument that design cannot possibly be practised in an environment devoid of society, but must “include the whole gamut of social skills that enable us to either negotiate a consensus or to give a lead.”

A common slip is for the absent-minded student author to forget to type the inverted commas at the end of a rather long phrase.

## **Acronyms and Abbreviations**

An acronym is a word constructed from the initial letter or letters of a set of other words. For instance the term html used in web design is constructed from the words Hyper Text Markup Language. Some acronyms, such as NATO (North Atlantic Treaty Organization) are so recognizable that explaining their derivation may seem somewhat overzealous. Less common acronyms that originate from specialized fields of study, such as VOC (volatile organic compounds used in construction and industrial design) must be explained upon their first appearance in the text. In their subsequent use afterwards, you may use the acronyms with no explanation.

Keep in mind that most words or names constructed by the initials of other words are usually written without periods between each letter.

Abbreviations are the shortened versions of a word. When a word is abbreviated and the letter the shortened version ends with is not the end letter of the word, then a full stop must be used at the end of the abbreviation.

Aug. (short for August), Ed. (short for editor)  
Vols (short for volumes), Eds (short for editors)

## **Numbers**

Unless part of an equation, it is generally best to spell out all one-digit numbers and to use figures for numbers containing more digits. The same applies for ordinals (first, second, third... 12th).

As a result, the drawings of six of those designers became art objects in their own right and were exhibited in 34 exhibitions worldwide.

If several numbers that include single and double-digit numbers appear in a row, then all numbers should be expressed in figures.

Most respondents replied positively to questions 2, 12 and 17.

However, if the essay consistently contains many numbers, say two or three in each paragraph, then it might make more visual sense if all numbers are spelled out completely.

A non-negotiable convention is never to begin a sentence with a number expressed in digits:

Nineteen hundred and ninety-nine is the year that saw the completion of 40 Grosvenor Place and Edificio Malecon, two prominent buildings built on the principles of sustainable architecture.

Numbers that are part of street addresses are written in numerical figures.

Fractions should also be spelled out:

One third of the material used is recyclable.

## **Full Stop, Comma and Inverted Commas**

Although a detailed survey of the best use of punctuation marks is not within the scope of this guidebook, here are a few tips for better practices.

When a sentence in inverted commas ends with a full stop, a comma or a question mark, then the closing end of the inverted

comma (",") is placed after the full stop or comma. Although the authors of this book find the above convention an elegant solution to arranging the order of punctuation marks, certain schools of grammar actually reverse this convention, placing the full stop and the comma after the end inverted comma. The reason behind this convention is that if the comma or full stop is not included in the original quoted phrase or sentence, then it has no place within the inverted commas. As always, whichever format you choose, make sure you remain faithful to your choice.

A possible exception to this rule is the use of brackets. You may choose to place full stops, commas and question marks outside brackets. Some schools of grammar opt for this method; others prefer to place the end bracket after the full stop or the comma.

### Example

Agatha Christie, in an attempt to demystify the process of generating and developing a successful plot, famously quoted "the best time to plan a book is while you're doing the dishes" (Safire & Safir 1992, p. 166).

## The Semicolon

The most undervalued punctuation mark in the English language deserves some attention. The reason the semicolon is not frequently used is not because it has little applicability, but because its use is little understood by many.

The semicolon is used to separate two thoughts or sentences that are related to each other but which can also stand as individual sentences. So if these thoughts or sentences can exist as individual sentences, then why use the semicolon to separate instead of a full stop? Well, you use the semicolon when the relation of these sentences has a complementary or contrary nature.

An example of a complementary use of a colon with semicolon would be:

A note for the diligent student: some students use the terms *citing* and *referencing* interchangeably; in fact, referencing is a somewhat illegitimate adaptation of a noun into a verb.

An example of a contrary use would be:

Some literary circles place the publication year, after the name of the author of the publication, others put it at the end; some keep the year in brackets, others do not; some researchers and authors write the publishing firm by first identifying the city where the firm is located, others place it at the end.

## Quotes

The way of presenting a quoted excerpt within the text depends mostly on the size of the quoted material. If you are quoting a phrase or a sentence up to two to three lines in length, you may include the quoted text within the paragraph of your text. In this case, the quoted text should be placed in inverted commas.

### Example

In his article "Walking Lightly on the Planet" (2009), James Sipes strongly promotes a decrease our of carbon footprints and he predicts that "we will soon be seeing maps with a level of detail that helps local decision makers determine the best policies and land-use patterns to control the impact of carbon emissions."

If, however, the excerpt quoted comprises four lines or more then it is best to separate it from the paragraph and write it as an indent, without the use of inverted commas.

### Example

In his article "Walking Lightly on the Planet" (2009), James Sipes

strongly promotes that through a better understanding of our carbon footprints we can become more equipped in reducing our carbon emissions. He also states:

We will soon be seeing maps with a level of detail that helps local decision makers determine the best policies and land-use patterns to control the impact of carbon emissions. In late 2008, the Orbital Carbon Observatory satellite was launched. Its mission is to collect data about carbon in the Earth's atmosphere and is intended to give us a much greater understanding of the problem than before (Sipes 2009).

Notice that in both previous examples of quotes, the correct citation is provided.

## **Headings and Subheadings**

A common visual mishap that occurs in student research and writing assignments is the inconsistency in the format denoting headings and subheadings within the main body of text. This understated element of essay presentation is almost as important as correct grammar. It helps orientate the reader in an invaluable way.

Most design students actually have fun determining schemes to organize their levels of headings and subheadings, but for those with tired brains, sterile of fresh ideas, here are a few tips:

- In the course of writing and editing your text you are likely to need to add more levels rather than less. For this reason, start assigning the font format in reverse order; first determine the format lowest level subheading and work your way upwards. The wisdom of this advice will only become apparent should you decide not to follow it. A stylish idea is to write the lowest level subheadings in italics.
- Once you have determined how many levels of subsections your text has, you can decide how to differentiate them in order of importance by using increasing font sizes by ascending order of significance, using bold lettering, uppercase and lowercase lettering, centred headings and left-justified headings.

If your text required five heading levels, here is a nifty format to separate them:

**Centred, Bold, Uppercase First Letter, Font 13**  
**Left-justified, Bold, Uppercase First Letter, Font 13**  
Centred, Uppercase First Letter, Font 13  
Left-justified, Uppercase First Letter, Font 13  
*Italics, font 12*

Note that the above scheme makes sense, only if the size of the text is 12 or smaller.

### One-point Hints:

- In expository writing, a sentence must always contain at least one verb.
- You may find it frustrating to start writing at the beginning – to release your block, start writing at any point of the essay, e.g. start with the main body and then write the introduction and the conclusion.
- According to the old adage “one thought leads to another,” while writing a certain paragraph of your essay, parallel thoughts of other paragraph ideas may creep up on you. Do not ignore them, thinking you will get back to them later. Scroll down on an empty page and write at least five key words describing your parallel thought.
- Grammar is not an easy business. Native and non-native speakers alike often make a variety of linguistic mistakes. The best way to fight the odds is to re-read your text as many times as possible. Second-guessing your text should increase your chances of finding and correcting your grammar.

## Stylistic Suggestions

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### Opening Sentence

The first sentence of the essay is extremely important. It sets the



mood of the reader and the rhythm with which the essay should be read. This first sentence will most likely be the Abstract, making it even more crucial that the opening sentence is as successful as possible.

Quite often, it is better to compose the opening sentence of the essay after more than half the text has been written. This is sound advice and it stems from basic principles of writing psychology. While researching your chosen topic, you gradually become comfortable and at ease with its many layers and intricacies, but it will not be until you actually write, and until your thoughts translate into words that you will truly be immersed in your topic's spirit. This state of mind will provide you with a much better prospect of writing a great opening sentence.

Try to sprinkle your first sentence with gusto and imagination while avoiding stereotypical phrases and expressions. The first sentence can be useful in setting the chronology of the essay or the attitude of the student author. Starting the sentence with a verb or an adjective, rather than a topic definition sometimes provides the sentences with a stronger sense of vitality. To ensure a more creative opening, try to avoid repeating the title in the first sentence.

### Example:

Assignment Topic:

"Experimental Trends in Twentieth Century Advertising"

A poor opening sentence:

Experimental trends in advertising refer to movements in the field of advertising where professionals are pushed towards less conventional techniques and imagery.

A better opening sentence:

Unsettled by modernization and marked by two world wars, the twentieth century provided futile grounds for groundbreaking advertising campaigns.

Assignment Topic:

"Early Social Agenda of Women in Industrial Design"

A poor opening sentence:

Women designers have long tried to introduce a social agenda in the realm of industrial design.

A better opening sentence:

Promoting feminist issues while being called to perform professionally and privately in a traditionally man-designed environment has been a long-standing issue among women designers.

## Passive and Active Voice

Deciding the relationship between the author and the reader is a delicate matter. If the assignment calls for an expository text or a historical survey, then it is best to eliminate all use of personal references (I believe, my opinion, etc). In the cases where the essay is argumentative or persuasive or it delves into matters of theory and criticism, then it may be appropriate for the author to address the reader directly. Some schools of thought however, consider as a matter of objectivity to avoid using the first person even while attempting to persuade the reader of your convictions. The key here is consistency: whichever voice you choose, passive or active, be sure that you do so throughout the entire text.

*A sentence written in active voice:*

Among the many investigations that I have conducted, I have tried to devote efforts to the visual aspects of physical space and constructed design.

*The same sentence expressed in passive voice:*

Among many investigations, great efforts have been devoted to the visual aspects of physical space and constructed design.

A word of caution: when expressing an opinion, it is sometimes unwise to make it appear as a fact, especially if supporting that opinion is not a primary focus in the essay. In cases like these, where you are expressing an opinion not appropriate for the use of passive voice, you can always exchange the personal pronoun (*I* or *we*) with *the author*.

It is the opinion of the author that a racially diverse community will be more apt to maintain community gardens.

Excluded from using the passive voice, are essays that accompany thesis projects. Since the purpose of the thesis write-up is to document the project executed by the student, it stands to reason that using the first person while describing the design process is not only appropriate, but it is also necessary.

## **Paragraph Changing**

The eye finds the visual separation of a new paragraph as the equivalent of a breath during speech. However, a common occurrence in student essays is the misdiagnosis of the paragraph. The purpose of the paragraph is to keep sentences of similar thought together. One way to make sure you do not stretch the paragraph in disjointed topics is to try to assign a phrase to describe the key topic of the paragraph. In order to benefit from this technique, the paragraph description must be as specific as possible. For instance, a paragraph may be about “reducing ecological footprint in cities in Southeast Asia” or “advantages of fuel cells in the car manufacturing industry.” If assigning a descriptive phrase seems like a task impossible to accomplish, then perhaps you should reconsider your paragraph separation.

There also is a school of thought that supports the technique of first and last sentence. This method engages the author in conveying the most important messages of the paragraph in the first and last sentence, so that should the reader choose to read just these two sentences, then he or she will still be able to deduce the gist of the entire paragraph.

Texts that are distinctly separated in clear paragraphs carry an important psychological advantage: going through a page where one sentence follows another in a continuous flow with no interruption, the reading mind is deprived of the millisecond of time during a paragraph change which is required to process the information just read.

Undoubtedly there will be times when you simply have a lot to say about a certain topic. It is important to resist the urge of creating page-long paragraphs. Cluster the sentences in reasonable groups and change paragraph!

## Items to be Avoided

### *Very*

The late Professor Margaret Henderson Floyd, who was an architectural historian and a renowned author, would always advise her students to use the word “very” as little as possible. The word “very” carries little meaning, she would say, and its use suggests the student author suffers from a vocabulary shortage. It is always best to try to express the desired meaning with other, more substantial words. A change in word order or the addition of other smaller auxiliary words may also produce similar results. If these options are not possible, then omitting the word “very” may be just as effective.

Exchanging “very” with words like “immense,” “quite,” “exceptionally” or “remarkably” may also be viable options.

The moment an idea reaches fruition is very tantalizing and very gratifying to the designer.

#### **A better approach:**

The moment an idea reaches fruition is remarkably tantalizing and quite gratifying to the designer.

#### **Also:**

The moment an idea reaches fruition is to the designer tantalizing as it is gratifying.

If you simply must use “very,” then be sure to use it as part of a phrase where it may act as a legitimate intensifier: *very* spacious or *very* careful. Using it in phrases such as *very* unique or *very* lovely makes little sense because adjectives such as these do not exist in varying degrees.

Similar restrictions and hesitation should also apply to the use of the word “really.”

### *Contractions*

In spoken language and phone texting alike, two words are often contracted into one. *Can not* becomes *can't*, *would have* becomes *would've* and so forth. For an academic essay to reach its full potential, contractions must be avoided at all costs.

### *But, Because, And*

Tempting as it might be, sentences should not begin with the words “but,” “because,” and “and.” These words, depending on context, may be replaced with the following:

But → However, although

Because → Since, as a result

And → Additionally, also

### **Self-Grading**

It is widely accepted that each person is his or her own strictest judge. While this can be a dangerous human trait, often difficult to balance against innate self-confidence, it may also act as a useful tool in bettering one's self and furthering one's achievements.

After completing your essay draft, submitting it to your advisors and any of your peers who might be willing to contribute to your quest, you then return to your room, sit in front of your personal computer and you edit, edit, edit. Although editing is a never-ending process, there comes a time when you have to call the essay complete and start planning and designing the final layout. An elegant, modestly creative and neatly bounded essay should be every designer's bread and butter.

There is only one thing left to do and that is to ask yourself: if you were to grade your essay, what grade would you give? It is important at this point of the assignment, to take a critical step back and appraise your essay as if you were the one to officially evaluate it. This procedure not only serves as a final proofread for grammar, misspelled names, missing words, incorrect punctuation marks and general slips, it also helps you to assess your essay at its core, spot significant deficiencies

and improve them.

If you can afford the time, allow a day or two to pass after you have completed the paper before you perform your self-grading. Unfortunately though, most student assignments are completed only hours before submission, leaving little time for a meaningful evaluation. This is one more reason why making and maintaining a time schedule is crucial to a successful assignment.

Sit in a room with little distraction, take your essay and start reading it from beginning to end. Have a pen or pencil handy for notes and corrections. Try to evaluate your essay based on the following criteria:

- |                   |   |   |
|-------------------|---|---|
| 1. Target success | { | • Is your statement of intent or thesis statement clearly delivered?            |
|                   |   | • Has the research targeted the right issues in order to support your intent?   |
| 2. Integrity      | ← | • Is the data provided sufficiently precise and detailed?                       |
| 3. Structure      | { | • Has all information been properly referenced?                                 |
|                   |   | • Have you followed the correct essay format?                                   |
|                   |   | • Have you minimized grammar and spelling mistakes to the best of your ability? |

The first three points refer to how well the essay attracts the reader's attention and how successfully the intentions of the research assignment have been carried out. Depending on the criteria of the evaluating body, the degree of target success usually carries most grading weight.

Honesty and systematic citation should not be overlooked since they are important criteria in grading a research assignment. So crucial is citation to research papers that the suspicion of plagiarism could be sufficient grounds for a failing grade and may even set off other measures of disciplinary action.

The third element in evaluating a research and writing assignment is adherence to essay structure and formats. Although this part carries possibly less weight than the two above, it still is a significant aspect in the assignment's overall success.

While keeping in perspective the three criteria explained above, how well do you think your paper will measure up? No one will ever know what grade you have given yourself, so you can afford to be as constructively honest as possible. Try not to enter a self-deprecating rut and try to justify the grade you have given yourself with helpful comments that can help you improve on the overall effectiveness of your essay.

Realistically speaking, researching and writing does not commonly come naturally for a large percentage of design students. A likely culprit for this statistic is a stumbling block of purely psychological origins. Designers feel more competent in “making” rather than writing. In fact, most think they are poor at writing, therefore their writing usually is of poor quality. Self-confidence is boosted by proper guidance, repeated writing experience and the first good grade accomplished in a research and writing assignment.

The same confidence issue also occurs on the other side of the fence: mathematics or history students probably dread the notion of sketching a freehand image or selecting layouts and presentation schemes for their research and writing assignment. The fact of the matter is that both writing and designing are skills that a willing spirit can cultivate to a reasonable degree of accomplishment. The individuals that truly excel at these skills are the ones belonging to an extremely small percentage of people born with raw talent. For those students who feel they may not belong in that special category, fear not! The first good grade needed to build up your confidence level is just around the corner.

# Appendix I:

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## The Opening Sequence

Name of department the course is offered  
*Name of Academic Institution*

**Title of assignment,  
thesis or dissertation**

*by*  
Name of Student Author

**Name of instructor**  
Course name and number

Date of Submittal



## **Abstract**

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The Abstract is where the purpose of the assignment is expressed as concisely as possible in a brief, self-contained paragraph. Research intentions are summarized in no less than five sentences and no more than fifteen. The Abstract must also include the statement of intent or thesis statement.

## **Acknowledgements**

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The Acknowledgement page is required only for thesis or dissertation essays. This page is a little like the Oscar speech, but do try to make it as tasteful as possible, making sure you include your thesis or dissertation advisors.

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# Appendix II:

## Citations and References for Author/Date System

Books	In-text citation	Reference
Single author	(Tufte 1992)	Tufte, E.R., 1992, <i>Envisioning Information</i> , Graphics Press, Cheshire
Two authors	(Ochoa & Corey 1995)	Ochoa, G. & Corey, M., 1995, <i>The Timeline Book of Science</i> , Ballantine Books, New York
More than two authors	(Lidwell et al. 2010)	Lidwell, W., Holden, K., Butler, J., 2003, <i>Universal Principles of Design</i> , Rockport Publishers Inc., Beverly, MA
Multiple works by the same author	(Jacobs 1970, 1993)	Jacobs, J., 1970, <i>The Economy of Cities</i> , Vintage Books, New York  Jacobs, J., 1993, <i>The Death and Life of Great American Cities</i> , Modern Library, New York
Multiple works by one author published in the same year	(Maeda 2001a, 2001b)	Maeda, J., 2001a, <i>Maeda@ Media</i> , Universe, New York  Maeda, J., 2001b, <i>Design by Numbers</i> , The MIT Press, Cambridge, MA
Citing a direct quote	(Margolin 1989, 23)	Margolin, V., 1989, <i>Design Discourse, History, Theory, Criticism</i> , University of Chicago Press, Chicago
Work cited by another author	In the 1992 work by Tufte (cited in Papadopolou & Lapithis 2011), it was stated that...	Papadopolou, A. & Lapithis, P., 2011, <i>A Practical Guide to Better Research and Writing for Students of Design</i> , University of Nicosia Press, Nicosia
Work that has been edited by a single editor	(ed. Hughes 2002)	Hughes, F. (ed.), 1996, <i>The Architect Reconstructing her Practice</i> , MIT Press, Cambridge

<b>Books</b>	<b>In-text citation</b>	<b>Reference</b>
Work cited by two or more editors	(eds Thomson & Steiner 2002)	Thompson, G.F. & Steiner, F.R. (eds), 1997, <i>Ecological Design and Planning</i> , John Wiley & Sons, Inc., New York
No author	(anon)	Anonymous work cannot be cited
<b>Periodicals and newspaper articles</b>	<b>In-text citation</b>	<b>Reference</b>
Author	(Dumaine 2010, p. 19)	Dumaine, B., 2010, "Brainstorm Green: One Cool Skyscraper," <i>Fortune</i> , vol. 161, no. 3, p. 19
<b>Theses and dissertations</b>	<b>In-text citation</b>	<b>Reference</b>
Author	(Papadopoulou 2000)	Papadopoulou, A., 2000, "Industry and Community: Restoring the Link," Master's Thesis, Rhode Island School of Design, Providence
<b>Conference Proceedings</b>	<b>In-text citation</b>	<b>Reference</b>
Author	(Casner & Larkin 1989)	Casner, S.M. & Larkin, J.H., 1989, "Cognitive Efficiency Considerations for Good Graphic Design," <i>Proceedings of the Eleventh Annual Conference of the Cognitive Science Society</i> , Ann Arbor, MI
<b>Publication by organization</b>	<b>In-text citation</b>	<b>Reference</b>
	(American Institute of Architects 2009)	"Overview of the 2009 AIA Firm Survey," <i>AIArchitect</i> , vol. 16
<b>Work from multi-media sources</b>	<b>In-text citation</b>	<b>Reference</b>
	(Heaven, Hell and Suburbia 1994)	"The Shining City," <i>Heaven and Hell and Suburbia</i> , 1994, Fulmar Television and Film, Bee, B., episode 1, viewed on 17 <sup>th</sup> September 2010

Information cited from the internet	In-text citation	Reference
	(Hargrove 2010)	Hargrove, G., 2010, "The Rural Design Vernacular: Objects that Expose Agency," Core77, accessed on 22 July 2010, < <a href="http://www.core77.com/blog/featured_items/the_rural_design_vernacular_objects_that_expose_agency_by_gabriel_hargrove_16880.asp">http://www.core77.com/blog/featured_items/the_rural_design_vernacular_objects_that_expose_agency_by_gabriel_hargrove_16880.asp</a> >
Information cited from an interview	In-text citation	Reference
	(Lapithis )	Interview with Dr Petros Lapithis, architect of the first passive solar house in Cyprus, "Teaching sustainability through theory and practice," 29 March 2009, Dr. Lapithis' office, Nicosia

# List of References

---

Adams, J., 1979, *Conceptual Blockbusters, A Guide to Better Ideas*, Norton, New York

Adler, M. & van Doren, C., 1972, *How to Read a Book*, MJF Books, New York

Barnett, R., 2007, "Sacred Groves: Sacrifice and the Order of Nature in Ancient Greek Landscape," *Landscape Journal, Design, Planning and Management of the Land*, vol. 26, no. 2, The University of Wisconsin Press

Bell, J., 2009, *Doing Your Research Project*, Open University Press, Berkshire

Borden, I. & Rueedi Ray, K., 2006, *The Dissertation: An Architecture Student Handbook*, Elsevier, Amsterdam

Frank, S.D., 1994, *The Evelyn Wood Seven Day Speed Reading and Learning Program*, Barnes & Noble Book, New York

Groat, L. & Wang, D., 2002, *Architectural Research Methods*, John Wiley & Sons, Inc., New York

Lawson, B., 2006, *How Designers Think, The Design Process Demystified*, Elsevier, Amsterdam

Madden, K., 2009, "Learn to Speed Read," You Tube, accessed on 22 February 2009, <<http://www.youtube.com/watch?v=v0K2QICvX9s>>

Newby, P., 2010, *Research Methods for Education*, Pearson, Harlow

Petroski, H., 1996, *Invention by Design*, Harvard University Press, Cambridge, MA

Safire, W. & Safir, L., 1992, *Good Advice on Writing*, Simon &



Schuster, New York

Sipes, J., 2009, "Walking Lightly on the Planet," *Landscape Architecture*, vol. 99, no. 2

Spigel, L., 1992, "The Suburban Home Companion: Television and the Neighborhood Idea in Postwar America," *Sexuality and Space*, Colomina, B. (ed.), Princeton Architectural Press, Princeton, NJ

Watson, P., 2005, *Ideas, A History from Fire to Freud*, Weidenfeld & Nicholson, London

Young, J., 2001, *Heidegger's Philosophy of Art*, Cambridge University Press, Cambridge

# Further Reading

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Anderson, J. & Poole, M., 2001, *Assignment and Thesis Writing*, John Wiley & Sons Australia, Ltd, Sydney

Brians, P., 2009, *Common Errors in English Usage*, William, James & Co., Wilsonville, OR

Gray, C. & Malins, J., 2004, *Visualizing Research: A Guide to the Research in Art and Design*, Ashgate, Hants

Levin, P., 2005, *Excellent Dissertations*, Open University Press, Berkshire

Madden, K., 2009, *Learn to Speed Read: The Official Kris Madden Workbook*, CreateSpace, Scotts Valley, CA

Northedge, A., 1990, *The Good Study Guide*, The Open University, Milton Keynes

Phillips, E.M. & Pugh, D.S., 1994, *How to Get a PhD: A Handbook for Students and their Supervisors*, Open University Press, Buckingham

Snyder, J.C. (ed.), 1984, *Architectural Research*, Van Nostrand Reinhold Co., New York

Written by designers, geared for design students, this guidebook is a valuable resource for better research and writing. It teases the imagination to help find a suitable topic for university level research assignments, including theses and dissertations and it provides a savvy roadmap for successfully completing all basic elements of the essay product. Also included is a special section on how design students can become quicker, more efficient readers.

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